Western Refining
GALLUP

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February 11, 2013

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

RE: INVESTIGATION REPORT
SOLID WASTE MANAGEMENT UNIT (SWMU) NO. 1 - AERATION BASIN AND SWMU NO. 14 – OLD API SEPARATOR
WESTERN REFINING COMPANY, SOUTHWEST, INC., GALLUP REFINERY
EPA ID # NMD000333211
HWB-WRG-11-002

Dear Mr. Kieling:

Please find enclosed the subject investigation report, which has been prepared pursuant to your letter of July 27, 2012. The investigation report presents the results of field activities conducted pursuant to the SWMU No. 1 Investigation Work Plan dated February 2012 (revised June 2012) and the SWMU No. 14 Investigation Work Plan dated January 2010 (revised October 2010).

If there are any questions regarding the investigation report, please contact me at (505) 722-0217.

Certification

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

Sincerely,

Mr. Ed Riege
Environmental Manager
Western Refining Southwest, Inc. – Gallup Refinery

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INVESTIGATION REPORT
Solid Waste Management Unit (SWMU) No. 1 Aeration Basin and SWMU No. 14 Old API Separator

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

EPA ID# NMD000333211

Volume 1 of 3
(Report, Tables and Figures)

February 2013

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List of Acronyms

API	American Petroleum Institute
AOCs	areas of concern
BTEX	benzene, toluene, ethylbenzene, and xylene
bgl	below ground level (bgl)
CFR	Code of Federal Regulations
DRO	diesel range organics
DAF	dilution/attenuation factor
EPA	Environmental Protection Agency
gpm	gallons per minute
HI	hazard index
HSA	hollow-stem auger
IDW	investigation derived waste
LPG	liquefied petroleum gas
LTU	Land Treatment Unit
MADEP	Massachusetts Department of Environmental Protection
MCL	maximum contaminant level
msl	mean sea level
MW	monitoring well
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
RCRA	Resource Conservation and Recovery Act
PID	photoionization detector
PVC	polyvinyl chloride
SPH	separate phase hydrocarbon
SWMUs	Solid Waste Management Units
TPH	total petroleum hydrocarbon
TVOC	total volatile organic content
TCLP	toxicity characteristic leaching procedure
USCS	unified soil classification system
VOC	volatile organic constituent
WQCC	Water Quality Control Commission

Executive Summary

The Gallup Refinery, which is located 17 miles east of Gallup, New Mexico, has been in operation since the 1950s. Past inspections by State and federal environmental inspectors have identified locations where releases to the environment may have occurred. These locations are generally referred to as Solid Waste Management Units (SWMUs) or Areas of Concern (AOCs). Pursuant to the terms and conditions of the refinery's Resource Conservation and Recovery Act (RCRA) Post-Closure Care Permit and 20.4.1.500 New Mexico Administrative Code, this environmental site investigation was completed for SWMU No. 1 (Aeration Basin) and SWMU No. 14 (Old API Separator).

The activities completed include sampling and analysis of soils and groundwater surrounding the Aeration Basin and Old API Separator to determine if there has been a release to the environment and to delineate any such release. In addition, information was collected to help determine the source of groundwater that has been observed in monitoring wells GWM-2 and GWM-3. The investigation began on July 16, 2012 and continued through October 16, 2012. This included the completion of 63 soil borings with 171 soil samples (excluding additional quality assurance samples) collected for analysis of potential site-related constituents (e.g., volatile and semi-volatile organics, total petroleum hydrocarbons, and metals). One of the soil borings (SWMU 14-2) near the Old API Separator was completed as a permanent monitoring well (OAPIS-1) and temporary well completions were installed in 10 additional borings to allow collection of groundwater samples. Twelve groundwater samples (excluding additional quality assurance samples) were collected for analysis of potential site-related constituents (e.g., volatile and semi-volatile organics, total petroleum hydrocarbons, metals, and inorganic/general water quality parameters).

At the Aeration Basin, four organic constituents (1,2,4-trimethylbenzene, 1-methylnaphthalene, benzene, and naphthalene), and diesel range organics (DRO) were detected in three soil samples at concentrations exceeding their respective screening levels. The three impacted soil samples were located at the north and south ends of the Aeration Basin.

There were numerous metals detected at concentrations above screening levels in groundwater samples collected from the soil borings that surround the Aeration Basin. The metal screening levels were exceeded in every soil boring from which a groundwater sample was collected. It is possible that these results are affected by high turbidity levels in the water samples collected

from the temporary well completions installed in the soil borings. Seven organic constituents (1-methylnaphthalene, 2-methylnaphthalene, 1,2,4-trimethlybenzene, benzene, methyl tert-butyl ether (MTBE), naphthalene, and 2,4-dimethylphenol), and DRO were detected in groundwater samples collected from soil borings at concentrations above screening levels. At least one organic constituent was found at concentrations above the screening levels in groundwater at five borings immediately surrounding the Aeration Basin and one boring a short distance to the southwest. Some of the deep soil borings completed near the Aeration Basin were either dry or would not produce enough water to allow completion of all scheduled analyses.

At the Old API Separator (OAPIS), twelve organic constituents [1,1,2-Trichloroethane, 1,2,4-trimethylbenzene, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane (EDB), 1,2-dichloropropane, 1-methylnaphthalene, 2-methylnaphthalene, benzene, ethylbenzene, naphthalene, xylenes, and bis(2-chloroethyl)ether] and DRO were detected in soils at concentrations above their screening levels. The highest concentrations were found in soil samples collected directly beneath the former location of the OAPIS and at borings immediately adjacent to the OAPIS. In addition, there is an area of elevated concentrations at depths of 8 to 12 feet below ground level (bgl) located near the west end of the former OAPIS extending north towards the location of the former benzene strippers.

Groundwater samples were collected from two soil borings near the OAPIS, one of which was completed as a permanent monitoring well. Similarly as observed above for the temporary well completions around the Aeration Basin, many metals were detected above screening levels in the groundwater samples collected at these locations. The number of metals detected at concentrations above their screening levels in the groundwater sample collected from the permanent well completion (OAPIS-1) was significantly less than the number detected in the groundwater sample collected from the initial temporary well completion in this same soil boring. It is possible that these results are affected by high turbidity levels in the water samples collected from the temporary well completions. Seven organic constituents (benzene, 1-methlynaphthalene, 2-methylnaphthalene, 1,2,4-trimethlybenzene, methylene chloride, MTBE, and naphthalene) and DRO were detected at concentrations above their screening levels in groundwater samples.

Potential future actions include an additional soil boring to the north of the Aeration Basin to provide full delineation of both soil and groundwater impacts to the north of the Aeration Basin. Also an additional boring to the southwest of the Aeration Basin could provide additional control

in this area for potential groundwater impacts. The area between the OAPIS and the Aeration Basin is relatively small and does not warrant additional investigation to determine if there is possible separation of impacts sourced from the two different SWMUs. An additional soil boring could be installed east of the OAPIS to provide full delineation of soil impacts observed in this area. Additional soil data to the southwest of the OAPIS could be used to better define soil impacts observed in this area of the site.

Section 1
Introduction

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

The Gallup Refinery is a crude oil refinery currently owned and operated by Western Refining Southwest, Inc., formerly known as Giant Industries Arizona, Inc. and formerly doing business as Giant Refining Company Ciniza Refinery, an Arizona corporation. The Gallup Refinery generally processes crude oil from the Four Corners area transported to the facility by pipeline or tanker truck.

Various process units are operated at the facility, including crude distillation, reforming, fluidized catalytic cracking, alkylation, isomerization, sulfur recovery, merox treater, and hydrotreating. Current and past operations have produced gasoline, diesel fuels, jet fuels, kerosene, propane, butane, and residual fuel.

The area of investigation that is the subject of this report is shown on Figure 2 for the Aeration Basin (SWMU No. 1) and Figure 3 for the Old API Separator (SWMU No. 14). The purpose of the site investigation is to determine and evaluate the presence, nature, and extent of releases of contaminants in accordance with 20.4.1.500 New Mexico Administrative Code (NMAC) incorporating 40 Code of Federal Regulations (CFR) Section 264.101. The investigation was completed pursuant to the SWMU No. 1 Investigation Work Plan dated February 2012 (revised June 2012) and the SWMU No. 14 Investigation Work Plan dated January 2010 (revised October 2010), with a few deviations (e.g., installation of additional soil borings), which are discussed in Section 3.1.

Section 2 presents background information for SWMU No. 1 and No. 14, including a review of historical waste management activities to help identity the types of waste handled, sources of releases, and previously known impacts to the environment. Section 3 describes the scope of work completed during the site investigation, including completion of soil borings, installation of a monitoring well, and sample collection. The fourth section of the report explains the results of the field investigation, including the general surface and subsurface conditions and detailed site-

specific information acquired during subsurface investigations. Section 5 explains the regulatory standards that are used for comparison to the analytical results and Section 6 presents the analytical results of soil and groundwater samples analyzed for volatile and semi-volatile organic constituents, total petroleum hydrocarbons (TPH), metals, and inorganic general chemistry constituents. The results of these analyses are compared to applicable State or federal cleanup and screening levels. Section 7 summarizes and provides an evaluation of the potential impacts and provides recommendations for any future actions.

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Section 2
Background

This section presents background information for SWMU No. 1 and No. 14, including a review of historical waste management activities for each SWMU to identity the following:

- Type and characteristics of waste and contaminants handled;
- Known and possible sources of impacts;
- History of releases; and
- Known extent of impacts prior to the current investigation.

2.1 SWMU No. 1 Aeration Basin

The Aeration Basin, which is designated as SWMU No. 1 in the facility's RCRA Post-Closure Care Permit, was constructed within original Pond No. 1 in 1987. The location and extent of the Aeration Basin is documented in the Post-Closure Care Permit, Attachments – Post-Closure Permit Application Volume III. The Aeration Basin includes three cells, which were created within original Pond No.1 to facilitate the addition of aeration units to the facility's wastewater treatment. These three cells are identified in the RCRA Permit as Inlet Aeration Basin, Second Aeration Basin and Holding Pond. Subsequently, the first two cells (Inlet Aeration Basin and Second Aeration Basin) have become known as the aeration lagoons or more specifically, AL-1 and AL-2. The third cell (Holding Pond) is now commonly referred to as EP-1, although it is not an evaporation pond and is not part of the area covered by SWMU No. 2 - Evaporation Ponds. Hereafter, the currently used designations of AL-1, AL-2 and EP-1 are used to refer to the three cells of SWMU No. 1 – Aeration Basin (Figure 2).

The aeration lagoons (AL-1 and AL-2) cover an area approximately 275 feet by 150 feet and have an estimated holding capacity of 1 million gallons. EP-1 is approximately 225 feet by 250 feet and has an estimated holding capacity of 3 million gallons. Three benzene air strippers were located between the refinery's API separator and the aeration lagoons to prevent characteristically hazardous waste from being discharged to the aeration lagoons. Monitoring data of the effluent from the two original benzene air strippers, which discharges into the inlet aeration lagoon, and flows into AL-2 has indicated that concentrations of benzene above the toxicity characteristic (TC) regulatory threshold of 0.5 milligrams per liter (mg/l) have entered these impoundments.

2.1.1 Operational History

Prior to construction of the new wastewater treatment plant in May 2012, the refinery process wastewater generated (approximately 178 gallons per minute (gpm) average flows for calendar year 2011) at the Gallup Refinery was managed first by physical treatment in an API separator, and then the volatile components were removed via benzene air strippers. The final treatment (biological) occurred in two aeration lagoons operated in series (AL-1 and AL-2). Water then flowed to EP-1, before being discharged to the evaporation ponds. The lagoons and EP-1 are earthen surface impoundments with natural clay functioning as a bottom liner. AL-1 and AL-2 are equipped with surface aerators to oxygenate the water and stimulate biological activity.

Wastewater from AL-1, subject to aggressive biological treatment, is routed to AL-2 through an overflow pipe. Flows to the aeration lagoons measured as totalized flow from the API Separator averaged 178 gallons per minute (gpm) for calendar year 2011. Totalizer readings were recorded weekly. Daily average flows were calculated based on elapsed time between readings. Western has installed a real time electronic data system that captures minute by minute flow data.

2.1.2 Prior Maintenance Activities

Western has experienced intermittent discharges of oil and oily water into the lagoons as documented in previous correspondence to NMED. Most of these occurrences were the result of unit upset/large storm events affecting the old API Separator. Some recent examples are described below:

- A release of oily water from the old API separator and its inlet box occurred on August 3, 2005 with approximately 17 cubic yards of impacted soils excavated from AL-1 and AL-2;
- Approximately 13 cubic yards of impacted soils were excavated from AL-1 and AL-2 after a release of oily water from the old API separator occurred on August 15, 2005;
- On June 15, 2006, Western submitted a letter to NMED requesting a "contained-in" determination regarding soil excavated from AL-1, AL-2 and EP-1 to remediate releases of oily water containing F037/F038, which occurred in the fall of 2005;
- A release of approximately 700-800 gallons of oil from the new API separator (NAPIS) occurred on March 3, 2007 to AL-1, AL-2, and EP-1, which resulted in the collection additional effluent samples at AL-1, AL-2 and EP-1. In July 2007, the impacted bank soils were removed from the aeration lagoons (AL-1 and AL-2), EP-1 and evaporation pond EP-2. NMED stated in their letter of August 15, 2007, that the oily wastewater contained benzene (D018) and F037/F038-listed waste; however, the excavated soils

were determined to meet the contained-in criteria and the excavated materials were appropriately disposed off-site pursuant to NMED's direction;

- On June 23, 2007 and July 19, 2007, oily wastewater reported to contain benzene (D018) and F037/F038-listed waste was released from the weir box at the NAPIS. The impacted soils were removed and subsequent analyses demonstrated the soils met the contained-in criteria for management as non-hazardous waste; and

- On August 3, 2008, 756 gallons of oily wastewater was discharged from the NAPIS to the Aeration Basin. The impacted soils were removed and disposed off-site pursuant to NMED's approval.

2.1.3 Historical Site Investigations

Soil sampling was conducted near the aeration lagoons and EP-1 during the RFI in the early 1990s. Based on the analytical results from the samples, the EPA concurred on January 7, 1994 with Giant's determination that no significant impact had occurred and thus no further action was required for SWMU #1. EPA requested that on-going soil sampling be conducted at the lagoons every two years, which was later reduced to a frequency of five years. The first "monitoring" event was completed in October, 1996. Soil samples were collected from depths of four feet to 20 feet below ground surface with some borings angled to allow collection of samples beneath the lagoons. Neither volatile nor semi-volatile organics were detected in 25 of the samples. Two samples collected near the side wall of the inlet aeration lagoon at a depth of four feet had very low concentrations of benzene, toluene, ethylbenzene, and xylenes (BTEX). The highest concentration was 2.2 mg/kg of xylenes.

A visual assessment of the lagoons was conducted in 1998, which concluded that the lagoons were in active service, functioning normally, oxygenating wastewater, and stimulating biological activity. The lagoons were found to have been placed in an appropriate geologic setting in which the underlying bentonitic soils exhibited a very low hydraulic conductivity of 10^{-7} cm/sec, effectively serving as an aquitard. The noted concentrations of BTEX near the inlet were considered common and predictable for the service.

Two groundwater monitoring wells (GWM-1 and GWM-2) were installed immediately down-gradient of the aeration lagoons in 2004 and 2005, respectively. Analyses of groundwater samples collected at GWM-1 and GWM-2 have indicated only very low concentrations of constituents such as BTEX and MTBE that would indicate a potential for historical releases from the lagoons. GWM-3 is also located nearby, adjacent to EP-1. Both GWM-2 and GWM-3 were dry during the 2007 annual sampling event.

In 2008 GWM-1 was sampled on July 10 and results are submitted to NMED annually. Detections at concentrations greater than established comparison criteria included benzene (0.011 mg/L), MTBE (0.12 mg/L), arsenic (0.070 mg/L), manganese (3.6 mg/L) and iron (14 mg/L). Iron and manganese detections may be indicative of reducing groundwater conditions that could alter inorganic valence states leading to elevated concentrations of iron and manganese in groundwater.

GWM-2 and GWM-3 were checked quarterly in 2008 to determine if any water was present in the wells. Water was first encountered in GWM-2 on February 18, 2008 and a sample was subsequently collected on February 28, 2008 and analyzed for petroleum hydrocarbons and volatile organic compounds (VOCs). The only constituent detected was MTBE at a concentration of 0.028 milligrams per liter. GWM-2 was checked again on March 17, 2008, May 21, 2008, September 10, 2008, and November 3, 2008, but it was found to be dry each time. GWM-3 was also checked on these same dates and found to be dry. Both wells were checked quarterly during 2009 and found to be dry on each occasion.

Water levels continued to be checked quarterly in GWM-2 and GWM-3 and during the second quarterly inspection in 2010 both wells indicated the presence of water. An estimated water column thickness of 1.5 feet and 0.88 feet was measured at GWM-2 and GWM-3, respectively. Water has been present in both wells and samples have been collected for analysis on a quarterly basis since. The results of the historical chemical analyses are summarized in the Table 1 through March 2012. As indicated in the tables, there have been a number of constituents detected in water samples collected from GWM-1, GWM-2, and GWM-3 that are at concentrations above potentially applicable action levels. Water level measurements are also included in Table 2.

An investigation of the aeration lagoons and EP-1 was conducted in April 2008 to characterize the volume and nature of sediments in each lagoon. A copy of the report of the investigation prepared by Trihydro Corporation is included as Appendix A. Based on this investigation, there appears to be two layers of sludge/sediment in the aeration lagoons. The upper layer ("soft sediment") is described as a soft, loose, and unconsolidated, as opposed to the lower layer ("hard pack sediment") that is more compact and dense. In some areas, the distinction between the two layers is indiscernible.

The investigation of EP-1 did not yield a similar distinction of sediment layers. The sediment in EP-1 exhibits similar physical characteristics to the soft sediment found in AL-1 and AL-2. Sixteen sediment depth measurements were made in EP-1, however only 5 measurements resulted in sediment depths greater than 2 feet. The sediment appearance was described as a black sludge with fluid in the upper portion and an increasing silt content moving deeper through the sample

Trihydro used the software program SurvCAD to produce calculations estimating the volumes of sediment in each lagoon and EP-1. Appendix E of the Trihydro Report provides the input parameters used in the program. The SurvCAD program produced the following estimates for sediment in the two lagoons and EP-1.

Estimated Volumes of Sludge in AL-1 and AL-2

Unit	Soft Sediment Thickness Min/Max (ft)	Soft Sediment Avg Thickness (ft)	Estimated Soft Sediment Volume (cy)	Hardpack Sediment Thickness Min/Max (ft)	Hardpack Sediment Avg Thickness (ft)	Estimated Hardpack Sediment Volume (cy)	Total Estimated Sediment Volume (cy)
AL-1	3.2-5.9	4.4	1,464	0-2.5	0.52	229	1,693
AL-2	5.8-8.5	7.47	3,404	0-2.2	0.96	430	3,834

Estimated Volumes of Sludge in EP-1

Unit	Average Sediment Depth (ft)	Maximum Sediment Depth (ft)	Estimated Sediment Volume (cy)
EP-1	1.59	5.04	3,178

Trihydro notes that the observed distinction between the two types of sediment in the aeration lagoons was not as evident as expected and therefore, it is suggested that sediment in the lagoons be considered and treated as a single sediment layer. Additionally, since the measurements and calculations are in-situ calculations, the SurvCAD program applied no allowances for expansion or compaction to the calculated estimates. Removal of the material from the lagoons or exposure to ambient air reducing the percent moisture of the sediment may impact the volume of material. Sample log sheets for each location can be found in the Trihydro Report (Trihydro Corporation, 2008).

2.2 SWMU No. 14 Old API Separator

The Old API Separator was not originally included as a SWMU in the 1988 Hazardous and Solid Waste Act (HSWA) permit or the subsequent 1990 RFI Work Plan. The "API Separator" was first added as a SWMU in the August 2000 Post-Closure Care Permit. There were two API Separators at the refinery as shown in Figure 2.

2.2.1 Operational History

The original separator, now referred to as the Old API Separator (OAPIS) was put into service in 1957. The OAPIS initially only received process wastewater and in 1996 a stormwater sewer system was installed that also flowed to the OAPIS. A new API Separator was put into service in October 2004 and the process wastewater was redirected to the New API Separator. The intention was that only the stormwater sewer system would continue to be directed to the OAPIS.

The API Separator is the first step in the treatment process of the refinery's wastewater. Its purpose is to remove free oil and suspended solids from the wastewater prior to subsequent downstream treatment. An API Separator functions as a gravitational separation unit and is designed based on the difference in specific gravity of the oil to be separated and the wastewater. Three phases result in the separator, with oil at the top, wastewater in the middle and accumulated sediment in the bottom. The oil is constantly removed from the upper layer, wastewater flows through continuously, and the bottom sediment layer is periodically removed to ensure proper function of the separator. The material accumulating in the bottom of the OAPIS has been routinely removed once a year or more frequently, as necessary.

The OAPIS was approximately 135 feet long, 22 feet wide and six feet high. The unit was mostly below ground level with the southern side being mostly at grade. The land surface slopes away to the north and up to approximately two feet of the separator was above grade in some locations. The unit was constructed on compact clay soils.

2.2.2 Prior Maintenance Activities

After the wastewater flows were diverted to the New API Separator, all residual materials were removed from the OAPIS in October 2004. The material was removed using vacuum trucks and sent off-site for recycling at the NORCO refinery. The OAPIS was steam cleaned and sand blasted in preparation for inspection and repairs. The concrete was patched in numerous locations in both bays and the weir wall down-stream of the pipe skimmer was rebuilt on both

bays. Stained soil (approx. 4,500 lbs) identified around the perimeter of the separator was removed and sent off-site for disposal as hazardous waste (K051).

In 2006, Western identified potential "dry weather" flows into the OAPIS and undertook an investigation of the sewer systems to determine if process wastewater was continuing to flow to the OAPIS. Flows from the OAPIS were directed to the New API Separator to ensure any potential process wastewaters entering the OAPIS were appropriately managed. A dye tracer study did not identify any cross-connections between the process wastewater and stormwater sewers. To help reduce the potential for process wastewater to flow to the OAPIS, numerous changes were made to both the stormwater drains and the process sewer drains in the summer of 2006.

The OAPIS was in service until recently to handle stormwater flows but in spite of extensive efforts to eliminate dry weather flows, it appears that some dry weather flow continued to enter the unit until it was taken out of service in February 2011. The discharge from the OAPIS was directed to the New API Separator to ensure appropriate treatment of any dry weather flow that may have entered the OAPIS. A new wastewater treatment plant was recently constructed at the Gallup Refinery and the OAPIS is no longer required, thus its removal from service.

The OAPIS was cleaned out in December 2011 to remove any potentially listed hazardous waste and all non-hazardous waste materials. Demolition of the OAPIS, which was conducted from June 11, 2012 through June 20, 2012, included removal of the metal components and the concrete containment with the exception of a portion of the southern wall, which was required to remain in-place to maintain the physical integrity of the structures (e.g., the flare knockout tank) located immediately south of the OAPIS.

The nearby benzene strippers were removed from service on November 9, 2012. After they were disconnected from the wastewater treatment plant piping, Strippers #1, #2, and #3 were decontaminated by first removing the packing and then rinsing with water in-place. After decontamination was completed, the strippers were taken to the Bone Yard where they were cut up for disposal. The packing material was placed into supersacks and taken to the 90-day storage area for off-site disposal as a hazardous waste.

2.2.3 Historical Site Investigations

The material handled in the OAPIS has primarily been petroleum hydrocarbons, with a lesser potential for refinery catalyst and gasoline additives to enter the sewer systems. As the solids that accumulate in the bottom of the separator are routinely removed, the greatest potential for a release from the unit would be the liquid phase containing dissolved petroleum hydrocarbons. Liquids could leak from the unit along cracks in the below ground concrete structure or from piping that transfers liquids into and from the unit.

There have not been any documented historical releases from the OAPIS with the aforementioned noted exception of the identification of some surface soils with hydrocarbon stains around the sides of the unit. These stained soils were removed and this limited volume of material did not indicate an obvious significant release.

There had not been an investigation of soils or groundwater in the immediate vicinity of the OAPIS prior to this investigation. There are existing monitoring wells in the general area, with two wells (GMW-1 and GWM-2) located along the down-gradient side of the Aeration Basin and also possibly down-gradient of the OAPIS and four monitoring wells near the New API Separator (NAPIS 1, NAPIS 2, NAPIS 3, and KA-3), which are cross-gradient to the OAPIS (Figure 2). Analyses of groundwater samples collected from these wells are discussed above in Section 2.1.3.

The soil and groundwater samples obtained for this investigation were collected from July 16, 2012 through October 17, 2012. On January 15, 2013, a spill of 70 barrels oily wastewater occurred onto the ground in the area where OAPIS was located. Western began immediate spill response actions and recovered 69.5 barrels of the spilled wastewater. The spill was limited to a small area within the original footprint of the OAPIS. The soil samples, which had previously been collected from this area, documented significant hydrocarbon impacts in this same area and the relatively dilute wastewater should not have resulted in an increase in concentrations such that the previously collected information would not be a valid representation of current conditions.

Section 3
Scope of Activities

3.1 Soil Boring, Monitoring Well Installation and Sample Collection

Pursuant to the approved Investigation Work Plans, an investigation of soils and groundwater was conducted to determine and evaluate the presence, nature, extent, fate, and transport of contaminants. To accomplish this objective, soil borings and monitoring wells were installed at the Aeration Basin (Figure 2) and the OAPIS (Figure 3).

As outlined in the Investigation Work Plans, there is the potential for constituents to have been released to soils at known locations and therefore a judgmental sampling design was implemented. Examples of these areas include documented spills that affected soils immediately adjacent to the OAPIS.

3.1.1 SWMU No. 1 Aeration Basin

The scope of work for the investigation at the Aeration Basin included approximately 28 shallow (i.e., 2-foot) soil borings spaced 50 feet apart around the perimeter of the Aeration Basin, with each fifth boring extended at least 6 inches below the bottom of the berm material if the berm material is deeper than 24 inches. In addition, eight deep soil borings were to be installed with groundwater samples collected, as possible, from temporary well completions in each deep boring.

Twenty eight shallow soil borings (SWMU 1-9 through SWMU 1- 23, SWMU 1-25 through SWMU 1-36, and SWMU 1-39) were completed and each fifth boring was extended at least 6 inches below the bottom of the berm material where the berm material was deeper than 24 inches (Figure 2). Eight deep soil borings (SWMU 1-1 through SWMU 1-8) were installed around the perimeter as required in the Investigation Work Plan and three additional deep soil borings (SWMU 1-24, SWMU 1-37, and SWMU 1-38) were completed to the southwest and west to facilitate lateral delineation. Based on observations of probable impacts at boring SWMU 1-4, shallow borings SWMU 1-19, SWMU 1-20 (extended deeper), SWMU 1-21, SWMU 1-22, SWMU 1-23, and SWMU 1-39) were shifted to the west to better facilitate lateral delineation on the west side of the Aeration Basin (Figure2). The installation of each boring is discussed in more detail in Section 4.3.

In addition to moving the specific borings discussed above, other deviations from the Investigation Work Plan include the inability to extend some of the shallow borings with a hand auger to the scheduled depth of two feet. The borings are discussed in detail in Section 4.3. Stiff clay with gravel was encountered in these borings, which prevented advancement with a hand auger. An attempt was made to loosen the compacted clay/gravel in advance of the hand auger using a hammer and decontaminated screwdriver, but it was still not possible to reach the target depth of two feet in all hand auger locations.

All eight of the scheduled deep soil borings (SWMU 1-1 through SWMU 1-8) were drilled to the top of bedrock (i.e., the Petrified Forest Formation) and groundwater samples were collected from temporary well completions in all but one of the borings. Soil boring SWMU 1-1 did not yield water and boring SWMU 1-5 yielded only a small quantity of water, which limited the analyses that could be performed (i.e., metals analyses were not conducted at SWMU 1-5). Low water yields affected other temporary wells also, but metals and all other analyses were completed with the exception that only total analyses were completed for the metals. Groundwater samples were also collected from temporary well completions in two of the additional soil borings (SWMU 1-24 and SWMU 1-37).

3.1.2 SWMU No. 14 Old API Separator

The scope of work for the OAPIS included nine soil borings installed to a minimum depth of ten feet and if groundwater was encountered, then a groundwater sample was to be collected from a temporary well completion. One of the soil borings on the north side of the benzene strippers was to be completed as a permanent monitoring well. In addition, soil samples from depths of 0-0.5' and 1.5-2.0' were to be collected from 11 additional locations using a hand auger.

Three of the deep soil borings were not completed as scheduled. One boring that was to be drilled beneath the center of the location of the benzene strippers could not be completed because the benzene strippers were still in operation during the investigation; the strippers have since been removed. Two of the planned deep borings (SWMU 14-5 and SWMU 14-8 located on the north side and northwest corner of the OAPIS) had to be installed with a hand auger instead of the hollow-stem auger (HSA) method due to access limitations with the drilling rig (Figure 3). The location for the permanent well (OAPIS-1) was moved slightly to the south, to a location just off the northwest corner of the benzene strippers. Four additional deep borings (SWMU 14-6, SWMU 14-21, SWMU 14-22, and SWMU 14-23) and one hand auger location

(SWMU14-24) were completed to help delineate the lateral extent to the east, south, and west of the OAPIS.

3.2 Background Information Research

Documents containing the results of previous investigations and subsequent routine groundwater monitoring data from monitoring wells were reviewed to facilitate development of the Investigation Work Plans. The previously collected data provides valuable information on the overall subsurface conditions, including hydrogeology and contaminant distribution within groundwater. The data collected under this investigation supplements the historical groundwater data and provides SWMU-specific information regarding contaminant occurrence and distribution within soils and groundwater.

3.3 Collection and Management of Investigation Derived Waste

Drill cuttings, excess sample material and decontamination fluids, and all other investigation derived waste (IDW) associated with soil borings were contained and characterized using methods based on the boring locations and type of contaminants suspected or encountered. All drill cuttings generated during the investigation at the Aeration Basin and the OAPIS were collected and put into 55-gallon drums. A composite sample of all 10 drums was collected using a decontaminated stainless steel spoon and sent to Hall Environmental Laboratory for waste characterization analysis. The sample was analyzed for Reactivity, Corrosivity, and Ignitability (RCI), RCRA 8 (TCLP) Metals, TCLP Volatiles (Method 1311 / 8260), TCLP Semi-volatiles (Method 1311 / 8270), and Total Petroleum Hydrocarbon (TPH) (Method 8015B). The Hall analytical report (# 1208B78) is indicated in Appendix E.

Based on the analysis, ten non-hazardous/non-regulated drums (2.7 cubic yards) were shipped off-site to Advanced Chemical Treatment Facility for disposal. All purge water and decontamination water was collected in 55-gallon drums and disposed in the refinery wastewater system located upstream of the API Separator.

3.4 Surveys

A hand held GPS receiver was used to record the coordinates of each soil boring. These coordinates were recorded on the field boring logs. The monitoring well location was subsequently surveyed by a registered surveyor.

The horizontal coordinates, the top of the monitoring well casing, and the ground surface at the monitoring well location were determined by a registered New Mexico professional land surveyor in accordance with the State Plane Coordinate System (NMSA 1978 47-1-49-56 (Repl. Pamp. 1993)). The surveys were conducted in accordance with Sections 500.1 through 500.12 of the Regulations and Rules of the Board of Registration for Professional Engineers and Surveyors Minimum Standards for Surveying in New Mexico.

Section 4
Field Investigation Results

This section provides a summary of the surface and subsurface conditions at the refinery, including the area near SWMUs No. 1 and 14. A discussion is included on the installation of soil borings, field screening of soils, and collection of soil samples for analysis. This is followed by a description of the installation of permanent and temporary well completions and the collection of groundwater samples.

4.1 Surface Conditions

A topographic map of the area near the Aeration Basin and OAPIS is included as Figure 4. Local site topographic features include high ground in the southeast gradually decreasing to a lowland fluvial plain the northwest. Elevations on the refinery property range from 7,040 feet to 6,860 feet. The area of the site near the Aeration Basin and the OAPIS is at an approximate elevation of 6,910 feet above mean sea level (msl).

The soils in the immediate vicinity of the Aeration Basin include two soil types. The McKinley County soil survey indicates that the soil type changes near the midline across the aeration lagoons. Surface soils from the northern section of the aeration lagoons and evaporation ponds are primarily Rehobeth silty clay loam (USDA, 2005). Rehobeth soil properties include a pH ranging from 8 to 9 standard units and salinity (naturally occurring) typically measuring up to approximately 8 mmhos/cm. The Rehobeth soils are described as having a geomorphic position *"within flood plains and stream terraces on valley floors."* The parent material is described as "*stream alluvium derived from gypsiferous shale.*" The permeability is "*slow*" (0.06 in/hr). The typical profile is as follows:

A (mineral horizon) — 0 to 2 inches; silty clay loam

Bw (B soil horizon, color or structure, but little illuvial accumulation) — 2 to 5 inches; silty clay loam

Bss (B soil horizon, alluvial accumulation) — 5 to 12 inches; clay

Bssny1 (B soil horizon, alluvial accumulation, sodium, gypsum) —12 to 18 inches; clay

Bssny2 (B soil horizon, alluvial accumulation, sodium, gypsum) —18 to 32 inches; clay

Bssny3 (B soil horizon, alluvial accumulation, sodium, gypsum) — 32 to 80 inches; clay

The southern end of the aeration lagoons and the OAPIS are mapped as being constructed within the bordering Simitarq-Celavar sandy loams. Simitarq soils have nearly neutral pH

values ranging from 7.2 to 7.4 standard units. The geomorphic position is described as "*summits on mesas and dipslopes on cuestas*", with a parent material of eolian material and slope alluvium over residuum derived from sandstone. The permeability is described as moderate (0.6 in/hour). The "*typical profile" is as follows:*

Oi (organic soil horizon, slightly decomposed)—0 to 1 inches;

A (mineral soil horizon) —1 to 2 inches; sandy loam

Bt (B soil horizon, argillic) — 2 to 11 inches; sandy clay loam

Btk1(B soil horizon, argillic, accumulation of calcium carbonate) — 11 to 27 inches; sandy clay loam

Btk2(B soil horizon, argillic, accumulation of calcium carbonate) —2 7 to 31 inches; sandy clay loam

R (bedrock) — 31 inches; sandstone bedrock

Regional surface water features include the refinery evaporation ponds and several small ponds (one cattle water pond and two small unnamed spring-fed ponds). Average annual rainfall is less than 10 inches per year, thus there are not many natural surface water bodies in this area. The site is located in the Rio Puerco valley, north of the Zuni Uplift with overland flows directed northward to the tributaries of the Rio Puerco river. The Rio Puerco river continues to the east to the confluence with the Rio Grande river. The South Fork of the Rio Puerco river is intermittent and retains flow only during and immediately following precipitation events.

There is very little vegetation throughout the area surrounding the Aeration Basin and OAPIS, with most surfaces composed of nearly bare dirt, gravel, concrete, or asphalt. The area between the refinery and the Rio Puerco River does have limited vegetation.

4.2 Subsurface Conditions

An underground pipeline is present in the western side of the Aeration Basin, which could act as a preferential pathway for contaminant migration to the west; however, it reaches the land surface only a short distance west of the Aeration Basin (Figure 2). Most of the other pipelines near the Aeration Basin and OAPIS are above ground but there are two (inlet and outlet) underground lines buried at a shallow depth near the OAPIS as indicated on Figure 3.

4.2.1 Geology

The shallow subsurface geology consists of fluvial and alluvial deposits comprised of clay and silt with minor inter-bedded sand layers, which overlie mudstone bedrock. These deposits are described in more detail below in descending order.

The Quaternary alluvium, which occurs at the land surface in the area of the Aeration Basin and OAPIS, is mapped regionally as a narrow band trending west-northwest and running just north of I-40 (Figure 5). The Quaternary alluvium is thought to be the parent material of the Rehobeth soils discussed above in Section 4.1. Two cross sections of the shallow subsurface in the immediate vicinity of the Aeration Basin and OAPIS are included as Figures 7 and Figure 8. As shown on the cross sections, the predominant lithology is silty clay with minor amounts of sand in varying proportions. Thin clayey sand lenses up to three to five feet in thickness are observed in the soil borings completed near the Aeration Basin and OAPIS, but the lenses are discontinuous. An isopach map of higher permeable materials (e.g., sand and gravel) was prepared for the sediments that immediately overlie the bedrock to determine if there is a laterally continuous layer of permeable materials present capable of transmitting groundwater and potential contaminants away from the Aeration Basin and/or OAPIS (Figure 9). As shown on the isopach map, there is not a laterally continuous layer of higher permeable materials present on top of the bedrock surface in the immediate vicinity of the Aeration Basin and the OAPIS. This is in contrast to the area further northwest near the Land Treatment Unit (LTU) where a sand layer up to 10 to 15 feet thick has been identified immediately overlying the bedrock (Precision Engineering, 1996). In the area of the LTU, a second sand layer up to 10 feet thick has also been identified, which is separated from the lower sand by a clay layer of 5 to 10 feet in the southern portion of the LTU. As shown on Figure 6 (Cross Section A-A'), these two sand bodies occur at a significantly lower elevation than the thin sand intervals identified near the Aeration Basin and OAPIS and do not appear to be stratigraphically equivalent.

A paleotopographic map, which is based on the current elevation of the top of the bedrock, was prepared to facilitate the evaluation of the deposition of the Quaternary alluvium (Figure 10). The surface of the bedrock slopes to the west and appears to be fairly uniform beneath the Aeration Basin. There is a significant depression of the surface elevation closer to the OAPIS as indicated in boring SWMU 14-1 and a second depressed area, possibly to a lesser extent, near the northwest corner of the Aeration Basin (boring SWMU 1-24). There is no obvious correlation between the surface of the bedrock and the presence of higher permeable materials in the overlying alluvium based on the available information.

Subcropping beneath the Quaternary alluvium is the Triassic Chinle Group, which is most likely the parent material of the Simitarq soils described above in Section 4.1 (Figure 5). The stratigraphy of the Chinle Group was described in detail for the nearby Fort Wingate quadrangle by Lucas et al, 1997. The Painted Desert Member of the Petrified Forest Formation is the

uppermost member of the Chinle Group present in the area of the refinery. The Painted Desert Member is described as reddish-brown and grayish red mudstone with minor beds of resistant, laminated or crossbedded, litharenite. This is consistent with the bedrock encountered at the refinery, as depicted on cross sections A-A', B-B', and C-C' (Figures 6, 7 and 8). Beneath the Painted Desert Member is the Sonsela Member, which is described by Lucas et al (1997) as gray to yellowish-brown, fine-grained to conglomeratic, crossbedded sandstone. The base of the Sonsela Member is recognized as a basin wide unconformity, which was termed the Tr-4 unconformity (Heckert and Lucas, 1996). The Blue Mesa Member, which underlies the Sonsela Member, is the lowest member of the Petrified Forest Formation and the lowest mappable unit shown on cross section A-A' (Figure 6). The Blue Mesa Member is described as mostly purple and greenish-gray mudstone.

4.2.2 Hydrogeology

As discussed above in Section 2.1.3, previous investigations of the occurrence of shallow groundwater near the Aeration Basin identified various groundwater-bearing units where more permeable horizons (e.g., clayey sand/sandy clay) are present within the generally low permeability deposits of the Quaternary alluvium. Generally, the potentiometric surface of the shallow groundwater in monitoring wells at the refinery follows the land surface (Figure 11). The presence of shallow groundwater in the area of the Aeration Basin and OAPIS appears to be associated with fluids managed in these two SWMUs. All of the deeper soil borings immediately surrounding the Aeration Basin encountered saturation or at least moist conditions where more permeable horizons (e.g., clayey sand) were present at elevations at or below the water levels in the Aeration Basin (Figure 7). Saturation was not encountered in similarly permeable soils at elevations above the water levels in the Aeration Basin, nor are any of the measured water levels in the shallow wells above the water levels in the Aeration Basin. Saturation was not encountered in borings (e.g., SWMU 14-1, SWMU 14-6, SWMU 14-7, SWMU 1-20, and SWMU 1-38) located further away from the Aeration Basin and OAPIS, with the exception of boring SWMU 14-23. There was an indication of saturation within a sandy clay interval in SWMU 14-23; however, no water was produced from a temporary well completion installed in the soil boring. In addition, as discussed above in Section 2.1.3, there have been low concentrations of constituents reported in shallow groundwater from samples collected nearby the Aeration Basin and OAPIS that have also been detected in water and sediment samples collected from the Aeration Basin. All of the evidence points to the Aeration Basin in particular as a source of recharge to the discontinuous permeable zones (e.g., clayey sand) that have been identified in

borings adjacent to the Aeration Basin. These saturated intervals produce very little water. Temporary well completions were installed in soil borings SWMU 1-2, SWMU 1-3, SWMU 1-4, SWMU 1-5, SWMU 1-6, SWMU 1-7, SWMU 1-8, SWMU 1-24, and SWMU 14-3. In every case, it was difficult to obtain sufficient volumes of water to complete scheduled sample collection activities and at SWMU 1-5, there was not a sufficient volume of water to allow analyses for all analytes.

The diverse properties and complex, irregular stratigraphy of the Quaternary alluvium across the refinery cause a wide range of hydraulic conductivity ranging from less than 10^{-2} cm/sec for gravel like sands immediately overlying the Painted Desert Formation to 10^{-8} cm/sec in the clay soils located near the surface (Western Refining, 2009). Permeability tests performed on the Quaternary alluvium beneath the nearby LTU indicated an average permeability of 1.9E-05 cm/sec (Appendix C). Permeability tests performed on soils in the area of the firewater pond indicated an average permeability of 1.1E-07 cm/sec (Appendix C).

As described above, the bedrock (i.e., Petrified Forest Formation) is mainly composed of low permeability materials (e.g., mudstone) with the exception of the Sonsela Member and some thinner sandstones within the overlying Painted Desert Member. Yield tests, including slug tests and pumping tests have been performed at the refinery to estimate the hydraulic conductivity of the Painted Desert Member (Appendix C). A slug test performed on July 3, 1984 in well OW-4 indicated a hydraulic conductivity of 4.0E-7 cm/sec. A pump test was performed in well OW-24 on February 20, 1985 and it yielded a hydraulic conductivity of 2.5E-7 cm/sec. The Painted Desert Member appears to be a competent aquitard to reduce the potential for downward migration of contaminants from groundwater that may occur within the overlying Quaternary alluvium.

The Sonsela Member is identified as the uppermost aquifer for RCRA monitoring purposes at the LTU because the overlying groundwater bearing units are not capable of supplying sufficient quantities of groundwater to meet the definitions of an aquifer. Wells completed in a thinner permeable sandstone layer within the Painted Desert Member are also monitored near the LTU as a potential early warning network. The Sonsela's highest point occurs southeast of the site and slopes downward to the northwest as it passes under the refinery. The Sonsela Member forms a water-bearing reservoir with artesian conditions throughout the central and western portions of the refinery property (Western, 2009). Aquifer test of the Sonsela Member conducted northeast of Prewitt indicated a transmissivity of greater than 100 ft^2/day (Stone and others,

1983). Yield tests conducted at the site have shown a much lower hydraulic conductivity of 0.34 ft/day (1.2E-04 cm/sec) (Appendix C).

4.3 Exploratory Drilling Investigations, Soil Sampling and Boring Abandonment

This subsection provides a description of surface and subsurface investigations to locate potential impacts to soils and also the potential for soil impacts to have migrated vertically to the underlying groundwater. This includes soil field screening results, soil sampling intervals and methods for detection of surface and subsurface impacts in soils.

4.3.1 Aeration Basin Soil Investigation

The deeper soil borings (i.e., those scheduled to penetrate deeper than two feet) were drilled using the hollow-stem auger (HSA) method and a general description of the exploratory drilling activities is as follows. The drilling equipment was decontaminated between each borehole, as described in Appendix B. All deep soil borings were drilled to the top of saturation and extended deeper if multiple zones of saturation were encountered to reach the sand layer identified in GWM-1 at a depth of 21.5 feet, which lies on top of the Petrified Forest Formation (i.e., bedrock). All of the originally scheduled deep soil borings (i.e., SWMU 1-1 through SWMU 1-8) and three additional deep borings (SMWU 1-20, SWMU 1-37, and SWMU 1-38) reached the top of bedrock. One additional deep soil boring (SWMU 1-24) did not reach bedrock but was terminated after drilling to a depth of 34 feet with steadily decreasing signs of potential impacts based on field screening and penetrating six feet below the bottom of saturation.

Discrete soil samples were collected for laboratory analyses at the following intervals:

- 0-6" (at soil borings with evidence of significant impacts near the land surface and all hand auger locations);
- 18-24" (at soil borings with evidence of significant impacts near the land surface and all hand auger locations, except where refusal was reached at a shallower depth);
- > 24" (from the interval in each soil boring with the greatest apparent degree of contamination, based on field observations and field screening);
- From a one-foot interval, which lies approximately five feet below the bottom of the Aeration Basin (all deep soil borings);
- From the bottom of each borehole (all soil borings);

- From the 6" interval at the top of saturation (all borings that encountered saturated soils) and
- Many additional soil samples were collected from:
  - zones that are sandy or silty;
  - intervals with apparent impacts based on field screening in addition to the interval with the greatest apparent impacts; and
  - in borings with multiple saturated intervals, soils samples were collected from each discrete saturated interval.

The installation of soil borings and collection of soil samples is discussed below in numerical order for the samples collected near the Aeration Basin. A description of the field screening and soil sampling procedures are presented in Appendix B – Field Methods. Copies of the boring logs are provided in Appendix D. In addition to being included on the soil boring logs, the soil vapor (i.e., headspace) screening results are summarized in Table 3. The locations of the soil borings appear on Figure 2.

SWMU 1-1

On October 5, 2012 the drilling rig was set up on location SWMU 1-1. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Three soil samples were collected from 2 - 4 feet, 10 - 12 feet and 13 - 14 feet bgl. Odor and elevated photoionization detector (PID) readings were observed from 2 - 14 feet bgl. Discoloration was observed from 2 - 4 feet bgl.

The lithology encountered consisted of surficial silty clay fill from 0 - 4 feet bgl. There was no recovery in the interval from 4 - 6 feet bgl. Soft, low plastic clay was encountered from 6 - 8 feet bgl. A very stiff, high plastic clay was encountered from 8 - 13 feet bgl. A very dense, dry, gray sandstone (Chinle Group- Painted Desert Member) was encountered from 13 - 14 feet bgl. The sampling terminated at 14 feet bgl. A temporary PVC well was installed with the screened interval ranging from 3 to 8 feet. No groundwater was detected in the temporary well. On October 9, 2012 the well was removed, the borehole was re-reamed and a temporary PVC well was reset with 10 feet of screen set from 2 - 12 feet. No groundwater was detected in the well. The well was pulled and the borehole was grouted on October 11, 2012.

SWMU 1-2

On October 2, 2012 the drilling rig was set up on location SWMU 1-2. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Five soil samples were collected from 6 - 8 feet bgl, 10 - 11 feet bgl, 14 - 16 feet bgl, 17 - 17.25 feet bgl and 19.5 - 20 feet bgl. No odors were evident from 0 - 16 feet bgl. Odors were evident from 16 - 19.5 feet bgl. The highest PID reading (7.2 ppm) was observed from 17 - 17.25 feet bgl.

The lithology encountered consisted of surficial silty clay from 0 - 8 feet bgl. There was no recovery in the interval from 8 - 10 feet bgl, (the empty sampling spoon was dripping with water). Saturated, fine grain clayey sand was encountered from 10 - 11.5 feet bgl. Moderate to low plastic clay was encountered from 11.5 - 12 feet bgl. Reddish brown, high plastic, firm clay was encountered from 12 - 14 feet bgl. A saturated, fine grain, clayey sand was encountered from 14 - 16 feet bgl. High plastic, firm, brown clay was encountered from 16 - 19.5 feet bgl. Two saturated, clayey sand seams were observed within the clay at 17 - 17.25 feet bgl and 18.50 - 18.75 feet bgl. A dense, dry, gray/reddish brown mudstone /sandstone (Painted Desert Member of Petrified Forest Formation) was encountered from 19.5 - 20 feet bgl. The sampling terminated at 20 feet bgl. A groundwater sample was collected from within the augers and the borehole was grouted.

SWMU 1-3

On October 2, 2012 the drilling rig was set up on location SWMU 1-3. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Five soil samples were collected from 2 - 4 feet bgl, 10 - 11 feet bgl, 11 - 11.25 feet bgl, 18.5 - 19.25 feet bgl and 19.5 - 20 feet bgl. No odors were evident in the samples collected from SWMU 1-3. The highest PID reading (21.3 ppm) was observed from 2 - 4 feet bgl.

The lithology encountered consisted of surficial silty clay from 0 - 11 feet bgl. A saturated, clayey sand seam was encountered from 11 - 11.25 feet bgl. High plastic, firm, reddish brown clay was encountered from 11.25 - 17 feet bgl. A damp to saturated, sandy clay / clayey sand was encountered from 17 - 19.5 feet bgl. A very dense, dry, reddish brown mudstone (Painted Desert Member of Petrified Forest Formation) was encountered from 19.5 - 20 feet bgl. The sampling terminated at 20 feet bgl. A temporary well was installed at this location with the screened interval ranging from 15 - 20 feet bgl. A groundwater sample was collected on October 3, 2012. The well was pulled and the borehole was grouted.

SWMU 1-4

On October 3, 2012 the drilling rig was set up on location SWMU 1-4. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Five soil samples were collected from 8 - 10 feet bgl, 10 - 12 feet bgl (duplicate), 17 - 18 feet bgl, and 23 - 24 feet bgl. No odors were evident in the samples collected from 0 - 14 feet bgl. Odors were evident in the samples collected from 16 - 23 feet bgl. The highest PID reading (16.4 ppm) was observed from 17 - 18 feet bgl.

The lithology encountered consisted of surficial silty clay from 0 - 10 feet bgl. A moist to saturated, clayey sand seam was encountered from 10 - 12 feet bgl. Silty clay was encountered from 12 - 14 feet bgl. There was no recovery in the interval from 14 - 16 feet bgl. Silty clay with black staining was encountered from 16 - 17 feet bgl. Moist to saturated sandy clay / clayey sand was encountered from 17 - 20 feet bgl. High plastic, reddish brown clay was encountered from 20 - 23 feet bgl. A dry, reddish brown / gray mudstone (Painted Desert Member of Petrified Forest Formation) was encountered from 23 - 24 feet bgl. The sampling terminated at 24 feet bgl. A temporary well was installed at this location with the screened interval ranging from 16 - 21 feet bgl. A groundwater sample (volatiles and semi-volatiles) was collected on October 4, 2012. A groundwater sample (metals) was collected on October 5, 2012. The well was pulled and the borehole was grouted.

SWMU 1-5

On October 3, 2012 the drilling rig was set up on location SWMU 1-5. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Six soil samples were collected from 10 - 12 feet bgl, 14 - 16 feet bgl, 16 - 18 feet bgl, 24 - 25 feet bgl, 26 - 27 feet bgl and 27 - 28 feet bgl. No odors were evident in the samples collected from SWMU 1-5. The highest PID reading (16.1 ppm) was observed from 16 - 18 feet bgl.

The lithology encountered consisted of surficial silty clay from 0 - 10 feet bgl. Clayey sand / silty clay / sandy clay was encountered from 10 - 16 feet bgl. A low plastic, gravelly clay was encountered from 16 - 26 feet bgl. Saturated, clayey sand was encountered from 26 - 27 feet bgl. A very dense, dry, gray, weathered mudstone (Painted Desert Member of Petrified Forest Formation) was encountered from 27 - 28 feet bgl. The sampling terminated at 28 feet bgl. A temporary well was installed on October 4, 2012 at this location with the screened interval

ranging from 23 - 28 feet bgl. A groundwater sample (volatiles and semi-volatiles) was collected on October 5, 2012. The well was pulled and the borehole was grouted.

SWMU 1-6

On October 4, 2012 the drilling rig was set up on location SWMU 1-6. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Six soil samples were collected from 2 - 4 feet bgl (duplicate), 4 - 6 feet bgl, 7.5 - 8 feet bgl, 10 - 11 feet bgl and 11 - 12 feet bgl. No odors were evident in the samples collected from SWMU 1-6. The highest PID reading (37.5 ppm) was observed from 2 - 4 feet bgl.

The lithology encountered consisted of surficial silty clay / gravel from 0 - 4 feet bgl. Saturated clayey sand was encountered from 4 - 7.5 feet bgl. Silty clay was encountered from 7.5 - 9 feet bgl. Saturated clayey sand was encountered from 9 - 11 feet bgl. A very dense, dry, reddish brown and gray mudstone (Painted Desert Member of Petrified Forest Formation) was encountered from 11 - 12 feet bgl. The sampling terminated at 12 feet bgl. A temporary well was installed with the screened interval ranging from 7 - 12 feet bgl. A groundwater sample was collected. The well was pulled and the borehole was grouted on October 5, 2012.

SWMU 1-7

On October 4, 2012 the drilling rig was set up on location SWMU 1-7. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Three soil samples were collected from 12 - 14 feet bgl, 14 - 16 feet bgl, and 16 - 18 feet bgl. No odors were evident in the samples collected from SWMU 1-7. The highest PID reading (7.6 ppm) was observed from 0 - 2 feet bgl.

The lithology encountered consisted of surficial silty clay from 0 - 12 feet bgl. High plastic clay with saturated clayey sand seams was encountered from 12 - 16 feet bgl. A very dense, dry, reddish brown and gray clay / mudstone (Painted Desert Member of Petrified Forest Formation) was encountered from 16 - 18 feet bgl. The sampling terminated at 18 feet bgl. A temporary well was installed with the screened interval ranging from 13 - 18 feet bgl. A groundwater sample was collected. The well was pulled and the borehole was grouted on October 5, 2012.

SWMU 1-8

On October 5, 2012 the drilling rig was set up on location SWMU 1-8. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Six soil samples were

collected from 4 - 6 feet bgl, 10 - 12 feet bgl, 12 - 14 feet bgl, 16 - 18 feet bgl (duplicate) and 19 - 20 feet bgl. Odors were evident in the samples collected from 4 - 6 feet bgl and 12 - 19 feet bgl. The highest PID reading (161 ppm) was observed from 12 - 14 feet bgl.

The lithology encountered consisted of surficial silty clay fill from 0 - 4 feet bgl. Saturated clayey sand was encountered from 4 - 6 feet bgl. Silty clay was encountered from 6 - 13 feet bgl. Saturated clayey sand was encountered from 13 - 19 feet bgl. A very dense, dry to damp, reddish brown / gray mudstone (Painted Desert Member of Petrified Forest Formation) was encountered from 19 - 20 feet bgl. The sampling terminated at 20 feet bgl. A temporary well was installed with the screened interval ranging from 13 - 18 feet bgl. A groundwater sample was collected. The well was pulled and the borehole was grouted on October 5, 2012.

SWMU 1-9

On October 15, 2012 location SWMU 1-9 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. Odors were not evident in the samples collected from SWMU 1-9. The highest PID reading (7.0 ppm) was observed from 1.5 - 2 feet bgl. The lithology encountered consisted of surficial silty clay / gravel fill from 0 - 0.5 feet bgl. Silty sand fill was encountered from 0.5 - 1.5 feet bgl. The boring was terminated in silty clay encountered from 1.5 - 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-10

On October 15, 2012 location SWMU 1-10 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. Odors were not evident in the samples collected from SWMU 1-10. The highest PID reading (10.1 ppm) was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of surficial silty clay / gravel fill from 0 - 0.5 feet bgl. Silty sand fill was encountered from 0.5 - 2 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-11

On October 15, 2012 location SWMU 1-11 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. Odors were not evident in the samples collected from SWMU 1-11. The highest PID reading (38.9 ppm) was observed from 0 - 0.5 feet bgl. The lithology encountered

consisted of surficial silty clay / gravel fill from 0 - 2 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-12

On October 15, 2012 location SWMU 1-12 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 0.5 - 1 feet bgl. Odors were not evident in the samples collected from SWMU 1-12. The highest PID reading (63 ppm) was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of surficial silty clay / gravel fill from 0 - 1 feet bgl. The boring was terminated at 1 feet bgl due to refusal in gravel. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-13

On October 12, 2012 the drilling rig was set up on location SWMU 1-13. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Five soil samples were collected from 0 - 0.5 feet bgl, 1.5 - 2 feet bgl, 2 - 4 feet bgl, and 4 - 6 feet bgl (duplicate). No odors were evident in the samples collected from SWMU 1-13. The highest PID reading (35.7 ppm) was observed from 2 - 4 feet bgl. The lithology encountered consisted of surficial silty clay fill from 0 - 6 feet bgl. The borehole was plugged with bentonite chips.

SWMU 1-14

On October 15, 2012 location SWMU 1-14 was sampled using a hand auger. The samples were collected from the auger bucket. Three soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl (duplicate). Odors were not evident in the samples collected from SWMU 1-14. The highest PID reading (5.7 ppm) was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of surficial silty clay / gravel fill from 0 - 1 feet bgl and clay fill from 1 - 2 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-15

On October 15, 2012 location SWMU 1-15 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. Odors were not evident in the samples collected from SWMU 1-15. The highest PID reading (9.3 ppm) was observed from 1.5 - 2 feet bgl. The lithology encountered

consisted of surficial silt / silty clay fill from 0 - 1 feet bgl and clay fill from 1 - 2 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-16

On October 15, 2012 location SWMU 1-16 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. Odors were not evident in the samples collected from SWMU 1-16. The highest PID reading (7.7 ppm) was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of surficial silt / gravel fill from 0 - 1 feet bgl and silty clay / gravel fill from 1 - 2 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-17

On October 15, 2012 location SWMU 1-17 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1 - 1.5 feet bgl. Odors were not evident in the samples collected from SWMU 1-17. The highest PID reading (9.5 ppm) was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of surficial silt / gravel fill from 0 - 0.5 feet bgl and silty clay fill from 0.5 - 1.5 feet bgl. The boring was terminated at 1.5 feet bgl due to refusal in gravel. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-18

On October 16, 2012 location SWMU 1-18 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1 - 1.5 feet bgl. Odors were not evident in the samples collected from SWMU 1-18. The highest PID reading (8.2 ppm) was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of surficial silt / gravel fill from 0 - 0.5 feet bgl and silty clay fill from 0.5 - 1.5 feet bgl. The boring was terminated at 1.5 feet bgl due to refusal in gravel. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-19

On October 16, 2012 location SWMU 1-19 was sampled using a hand auger. The samples were collected from the auger bucket. One soil sample was collected from 0 - 0.5 feet bgl.

Odors were not evident in the samples collected from SWMU 1-19. The PID reading (4.1 ppm) was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of surficial silt from 0 - 0.5 feet bgl. The boring was terminated at 0.5 feet bgl due to refusal in gravel. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-20

On October 11, 2012 the drilling rig was set up on location SWMU 1-20, which was an additional location selected west of the Aeration Basin to help define the lateral extent of potential impacts observed in SWMU 1-4. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Five soil samples were collected from 0 - 0.5 feet bgl (duplicate), 1.5 - 2 feet bgl, 4 - 6 feet bgl, and 10 - 12 feet bgl (duplicate). No odors were evident in the samples collected from SWMU 1-20. The highest PID reading (21.7 ppm) was observed from 0 - 2 feet bgl. The lithology encountered consisted of silt / silty clay from 0 - 2 feet bgl. Silty clay was encountered from 2 - 10 feet bgl. A very dense, dry to damp, reddish brown mudstone (Painted Desert Member of Petrified Forest Formation) was encountered from 10 - 12 feet bgl. The sampling terminated at 12 feet bgl. The borehole was plugged with bentonite chips.

SWMU 1-21

On October 16, 2012 location SWMU 1-21, which was shifted west of the its original location, was sampled with a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl (duplicate). Odors were not evident in the samples collected from SWMU 1-21. A PID reading of 1.4 ppm was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of silt from 0 - 0.5 feet bgl. The boring was terminated at 0.5 feet bgl due to refusal in gravel. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-22

On October 16, 2012 location SWMU 1-22, which was shifted west of its original location, was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. Odors were not evident in the samples collected from SWMU 1-22. The highest PID reading (6.8 ppm) was observed from 1.5 - 2 feet bgl. The lithology encountered consisted of silt from 0 - 0.5 feet bgl and silty clay

from 0.5 - 2 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-23

On October 16, 2012 location SWMU 1-23 was sampled using a hand auger. This boring was moved west of its original location due to earlier field indications of potential impacts at SWMU 1-4 and SWMU 1-24. The samples were collected from the auger bucket. One soil sample was collected from 0 - 0.5 feet bgl. Odors were not evident in the samples collected from SWMU 1-23. The PID reading (3.7 ppm) was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of silt /gravel from 0 - 0.5 feet bgl. The boring was terminated at 0.5 feet bgl due to refusal in gravel. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-24

On October 8, 2012 the drilling rig was set up on location SWMU 1-24. This location was an additional deep boring installed between SWMU 1-4 to the south and SWMU 1-5 to the north to better define potential impacts in this area. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Seven soil samples were collected from 0 - 0.5 feet bgl (duplicate), 1.5 - 2 feet bgl, 10.5 - 11.5 feet bgl, 16 - 18 feet bgl, 24 - 26 feet bgl and 32 - 34 feet bgl. Odors were evident in the samples collected from 18 - 32 feet bgl. The highest PID reading (28 ppm) was observed from 16 - 18 feet bgl.

The lithology encountered consisted of surficial silty clay fill from 0 - 16 feet bgl. Damp, clayey sand was encountered within the silty clay at the 10.5 - 11.5 feet bgl interval. Sandy clay / clayey sand was encountered from 16 - 20 feet bgl. Clayey silt was encountered from 20 - 24 feet bgl. The interval from 24 - 28 feet contained clayey silt and sand and was observed to be saturated to very moist. Black discoloration was also observed from 20 to 34 feet bgl. Damp, very dense clayey sand / gravel was encountered from 30 - 34 feet bgl. The sampling terminated at 34 feet bgl. A temporary well was installed on October 9, 2012 with the screened interval ranging from 16 - 26 feet bgl. A groundwater sample was collected on October 10, 2012. The well was pulled and the borehole was grouted on October 11, 2012.

SWMU 1-25

On October 16, 2012 location SWMU 1-25 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 0.5 - 1 feet bgl. Odors were not evident in the samples collected from SWMU 1-25. The

highest PID reading (4.7 ppm) was observed from 0.5 - 1 feet bgl. The lithology encountered consisted of sand / gravel fill from 0 - 1 feet bgl. The boring was terminated at 1 feet bgl due to refusal in gravel. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-26

On October 16, 2012 location SWMU 1-26 was sampled using a hand auger. The samples were collected from the auger bucket. One soil sample was collected from 0 - 0.5 feet bgl. Odors were not evident in the samples collected from SWMU 1-26. A PID reading of 6.5 ppm was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of silty clay / gravel from 0 - 0.5 feet bgl. The boring was terminated at 0.5 feet bgl due to refusal in gravel. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-27

On October 12, 2012 the drilling rig was set up on location SWMU 1-27. This location was originally to be completed with a hand auger, but the drilling rig was used to allow deeper penetration to help define any potential impacts observed in boring SWMU 1-6. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. No odors were evident in the samples collected from SWMU 1-27. The highest PID reading (18.2 ppm) was observed from 2 - 4 feet bgl. The lithology encountered consisted of silty clay fill from 0 - 4 feet bgl. The sampling terminated at 4 feet bgl. The borehole was plugged with bentonite chips.

SWMU 1-28

On October 12, 2012 the drilling rig was set up on location SWMU 1-28. This location was originally to be completed with a hand auger, but the drilling rig was used to allow deeper penetration to help define any potential impacts observed in boring SWMU 1-6. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Three soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl (duplicate). No odors were evident in the samples collected from SWMU 1-28. The highest PID reading (4.8 ppm) was observed from 2 - 4 feet bgl. The lithology encountered consisted of silty clay fill from 0 - 2 feet bgl and clayey gravelly sand from 2 - 4 feet bgl. The sampling terminated at 4 feet bgl. The borehole was plugged with bentonite chips.

SWMU 1-29

On October 16, 2012 location SWMU 1-29 was sampled using a hand auger. The samples were collected from the auger bucket. One soil sample was collected from 0 - 0.5 feet bgl. Odors were not evident in the samples collected from SWMU 1-29. A PID reading of 3.6 ppm was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of silty clay / gravel from 0 - 0.5 feet bgl. The boring was terminated at 0.5 feet bgl due to refusal in gravel. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-30

On October 12, 2012 the drilling rig was set up on location SWMU 1-30. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Three soil samples were collected from 0 - 0.5 feet bgl, 1.5 - 2 feet bgl, and 4 - 6 feet bgl. No odors were evident in the samples collected from SWMU 1-30. The highest PID reading (6.7 ppm) was observed from 4 - 6 feet bgl. The lithology encountered consisted of silty clay fill from 0 - 4 feet bgl and clayey sand from 4 - 6 feet bgl. The sampling terminated at 6 feet bgl. The borehole was plugged with bentonite chips.

SWMU 1-31

On October 16, 2012 location SWMU 1-31 was sampled using a hand auger. The samples were collected from the auger bucket. One soil sample was collected from 0 - 0.5 feet bgl. Odors were not evident in the samples collected from SWMU 1-31. A PID reading of 3.9 ppm was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of silty clay / gravel from 0 - 0.5 feet bgl. The boring was terminated at 0.5 feet bgl due to refusal in gravel. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-32

On October 16, 2012 location SWMU 1-32 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl (duplicate). Odors were not evident in the samples collected from SWMU 1-32. A PID reading of 0.7 ppm was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of silty clay / gravel from 0 - 0.5 feet bgl. The boring was terminated at 0.5 feet bgl due to refusal in gravel. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-33

On October 16, 2012 location SWMU 1-33 was sampled. Sample collection was accomplished using a hand auger. The samples were collected from the auger bucket. One soil sample was collected from 0 - 0.5 feet bgl. Odors were not evident in the samples collected from SWMU 1-33. A PID reading of 3.1 ppm was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of silty clay / gravel from 0 - 0.5 feet bgl. The boring was terminated at 0.5 feet bgl due to refusal in gravel. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-34

On October 16, 2012 location SWMU 1-34 was sampled using a hand auger. The samples were collected from the auger bucket. One soil sample was collected from 0 - 0.5 feet bgl. Odors were not evident in the samples collected from SWMU 1-34. A PID reading of 3.2 ppm was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of silty clay / gravel from 0 - 0.5 feet bgl. The boring was terminated at 0.5 feet bgl due to refusal in gravel. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-35

On October 12, 2012 the drilling rig was set up on location SWMU 1-35. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Three soil samples were collected from 0 - 0.5 feet bgl, 1.5 - 2 feet bgl, and 4 - 6 feet bgl. No odors were evident in the samples collected from SWMU 1-35. The highest PID reading (4.7 ppm) was observed from 2 - 4 feet bgl. The lithology encountered consisted of silty clay fill from 0 - 4 feet bgl and silty clay / clayey silt from 4 - 6 feet bgl. The sampling terminated at 6 feet bgl. The borehole was plugged with bentonite chips.

SWMU 1-36

On October 16, 2012 location SWMU 1-36 was sampled using a hand auger. The sample was collected from the auger bucket. One soil sample was collected from 0 - 0.5 feet bgl. Odors were not evident in the samples collected from SWMU 1-36. A PID reading of 1.9 ppm was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of silty clay / gravel from 0 - 0.5 feet bgl. The boring was terminated at 0.5 feet bgl due to refusal in gravel. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 1-37

On October 10, 2012 the drilling rig was set up on location SWMU 1-37. This was an additional deep boring installed southwest of boring SWMU 1-2. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Seven soil samples were collected from 0 - 0.5 feet bgl, 1.5 - 2 feet bgl, 8 - 8.5 feet bgl, 8.5 - 9 feet bgl, 12 - 13 feet bgl, 13 - 14 feet bgl, and 17 - 18 feet bgl. No odors were evident in the samples collected from SWMU 1-37. The highest PID reading (16.6 ppm) was observed from 6 - 8 feet bgl.

The lithology encountered consisted of surficial silty clay from 0 - 7 feet bgl. High plastic clay was encountered from 7 - 16 feet bgl. Encountered at 8.5 - 9 feet bgl and 12 - 13 feet bgl were saturated clayey sands. No discoloration or odors were associated with these sands. The boring was terminated in a very dense, dry, gray, clay / mudstone (Painted Desert Member of Petrified Forest formation). The sampling terminated at 18 feet bgl. A temporary well was installed with the screened interval ranging from 10 - 15 feet bgl. A groundwater sample was collected on October 11, 2012. The well was pulled and the borehole was grouted on October 11, 2012.

SWMU 1-38

On October 11, 2012 the drilling rig was set up on location SWMU 1-38. This additional location was selected west of SWMU1-4 to help define the lateral extent of any impacts observed in borings SWMU 1-4 and 1-24. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Three soil samples were collected from 0 - 0.5 feet bgl, 1.5 - 2 feet bgl, and 6 - 8 feet bgl. No odors were evident in the samples collected from SWMU 1-38. The highest PID reading (11.7 ppm) was observed from 6 - 8 feet bgl. The lithology encountered consisted of silt / silty clay from 0 - 2 feet bgl and silty clay 2 - 6 feet bgl. A very dense, dry, reddish brown / gray, mudstone (Painted Desert Member of Petrified Forest Formation) was encountered from 6 - 8 feet bgl. The sampling terminated at 8 feet bgl. The borehole was plugged with bentonite chips.

SWMU 1-39

On October 16, 2012 location SWMU 1-39 was sampled using a hand auger. The samples were collected from the auger bucket. One soil sample was collected from 0 - 0.5 feet bgl. Odors were not evident in the samples collected from SWMU 1-39. The PID reading (4.4 ppm) was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of silt / gravel fill from

0 - 0.5 feet bgl. The boring was terminated at 0.5 feet bgl due to refusal in gravel. Soils not used for laboratory analyses were placed back in the borehole.

4.3.2 Old API Separator

The deeper soil borings (i.e., those scheduled to penetrate deeper than two feet) were drilled using the HAS drilling method and a general description of the exploratory drilling activities is as follows. The drilling equipment was decontaminated between each borehole, as described in Appendix B. All scheduled deep soil borings were drilled to a minimum depth of 10 feet pursuant to the investigation work plan with the exception of locations SWMU 14-5 and SWMU 14-8, which had to be installed with a hand auger due to access limitations. None of the soil borings encountered bedrock near the OAPIS even though the boring at SWMU 14-1 reached a depth of 50 feet bgl. Additional soil borings (SWMU 14-6, SWMU 14-21, SWMU 14-22, SWMU 14-23, and SWMU 14-24) were completed to delineate the lateral extent of potential impacts to the east, south, and west of the OAPIS.

Discrete soil samples were collected for laboratory analysis from the following intervals:

- 0-0.5' (all borings);
- 1.5-2.0' (all borings except SWMU 14-20 where refusal was reached at a depth of 1 foot);
- From the 6" interval at the top of saturation, if encountered;
- A sample from each boring in the interval with the greatest apparent degree of contamination, based on field observations and field screening;
- The 6" interval at the bottom of each boring except SWMU 14-23 where there was no sample recovery in the bottom 4 foot of the boring; however, saturation was encountered in this boring and a sample was collected from the 6" interval at the top of saturation instead pursuant to the investigation work plan; and
- Additional soil samples were collected from:
    - Zones that are sandy or silty; and
    - Intervals with apparent impacts based on field screening in addition to the interval with the greatest apparent impacts

The installation of soil borings and collection of soil samples is discussed below in numerical order for the samples collected near the OAPIS. A description of the field screening and soil sampling procedures are presented in Appendix B – Field Methods. Copies of the boring logs

are provided in Appendix D. In addition to being included on the soil boring logs, the soil vapor (i.e., headspace) screening results are summarized in Table 3. The locations of the soil borings appear on Figure 3.

SWMU 14-1

On July 16, 2012 the drilling rig was set up on location SWMU 14-1. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Three soil samples were collected from the following intervals on July 16, 2012; 0 - 0.5 feet bgl, 1.5 - 2 feet bgl, and 10 - 12 feet bgl. Sampling was stopped for the day at 30 feet bgl.

On July 17, 2012 the crew returned to SWMU 14-1. There was no groundwater observed in the borehole. Sampling resumed and an additional sample was collected from the interval 48 - 50 feet bgl. The sampling was terminated at 50 feet bgl.

No odors were observed in the soil samples from SWMU 14-1. The highest PID reading (105.9 ppm) was observed from 10 - 12 feet bgl.

The lithology encountered consisted of surficial silty clay from 0 - 8 feet bgl. High plastic clay was encountered from 8 - 12 feet bgl. A low to moderate plastic silty clay was encountered from 12 - 36 feet bgl. A fine grain, poorly cemented, reddish brown sandstone was encountered from 36 - 38 feet bgl. Encountered from 38 to 50 feet bgl was silty clay / clay with low plasticity and very stiff. The borehole was grouted on July 18, 2012.

SWMU 14-2

On July 17, 2012 the drilling rig was set up on location SWMU 14-2. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Six soil samples were collected from 0 - 0.5 feet bgl, 1.5 - 2 feet bgl, 8 - 10 feet bgl (duplicate), 16 - 18 feet bgl, and 24 - 25 feet bgl. Odors were evident in the samples collected from 1.5 - 13 feet bgl. Discoloration was apparent from 1.5 - 13 feet bgl. The highest PID reading (330 ppm) was observed from 8 - 10 feet bgl.

The lithology encountered consisted of surficial clay / gravel from 0 - 1.5 feet bgl. Moderate plastic clay was encountered from 1.5 - 2 feet bgl. Low plastic, silty clay was encountered from 2 - 13 feet bgl. Moderate plastic, stiff, reddish brown clay was encountered from 13 - 25 feet bgl. A temporary PVC well screen was installed on July 17 and it was replaced with a permanent well completion on July 19, 2012.

SWMU 14-3

On July 18, 2012 the drilling rig was set up on location SWMU 14-3. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Five soil samples were collected from 0 - 0.5 feet bgl, 1.5 - 2 feet bgl, 8 - 10 feet bgl, 12 - 14 feet bgl, and 25.5 - 26 feet bgl. Odors were apparent in the samples collected from 2 - 20 feet bgl. Discoloration was apparent from 2 - 14 feet bgl. The highest PID reading (343 ppm) was observed from 8 - 10 feet bgl.

The lithology encountered consisted of surficial silty clay from 0 - 14 feet bgl. Moderate plastic clay was encountered from 14 - 24 feet bgl. Groundwater was observed in the sampling spoon from the 14 - 16 feet bgl interval. Low plastic silty clay was encountered from 24 - 26 feet bgl. The sampling was terminated at 26 feet bgl. A groundwater sample was collected from the augers. The borehole was grouted.

SWMU 14-4

On July 17, 2012 the drilling rig was set up on location SWMU 14-4. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Four soil samples were collected from 0 - 0.5 feet bgl, 1.5 - 2 feet bgl, 10 - 12 feet bgl, and 19.5 - 20 feet bgl. Odors were apparent in the samples collected from 6 - 14 feet bgl. Discoloration was apparent from 8 - 10 feet bgl. The highest PID reading (711 ppm) was observed from 10 - 12 feet bgl.

The lithology encountered consisted of surficial silty clay from 0 - 14 feet bgl. Moderate plastic clay was encountered from 14 - 20 feet bgl. The sampling was terminated at 20 feet bgl. Groundwater was not observed in this boring.

SWMU 14-5

On July 19, 2012 location SWMU 14-5 was sampled using a hand auger. The samples were collected from the auger bucket. Three soil samples were collected from 0 - 0.5 feet bgl (duplicate) and 1.5 - 2 feet bgl. Odors were not evident in the samples collected from SWMU 14-5. The highest PID reading (7.4 ppm) was observed from 1.5 - 2 feet bgl. The lithology encountered consisted of gravel / clay from 0 - 2 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 14-6

On October 9, 2012 the drilling rig was set up on location SWMU 14-6. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Four soil samples were collected from 0 - 0.5 feet bgl, 1.5 - 2 feet bgl, 10 - 12 feet bgl, and 17 - 18 feet bgl. Odors were apparent in the samples collected from 4 - 14 feet bgl. Discoloration was apparent from 4 - 8 feet bgl. The highest PID reading (367 ppm) was observed from 10 - 12 feet bgl.

The lithology encountered consisted of surficial silty clay from 0 - 8 feet bgl. A high plastic clay was encountered from 8 - 18 feet bgl. Sampling was terminated at 18 feet bgl and the borehole was grouted. Groundwater was not observed in this boring.

SWMU 14-7

On July 18, 2012 the drilling rig was set up on location SWMU 14-7. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Four soil samples were collected from 0 - 0.5 feet bgl, 1.5 - 2 feet bgl, 6 - 8 feet bgl, and 23.5 - 24 feet bgl. Odors were apparent in the samples collected from 0 - 18 feet bgl. The highest PID reading (935 ppm) was observed from 6 - 8 feet bgl.

The lithology encountered consisted of gravel / clay fill from 0 - 2 feet bgl and then silty clay from 2 - 6 feet bgl. High plastic clay was encountered from 6 - 16 feet bgl. Clayey sand / sandy clay was encountered from 16 - 20 feet bgl. High plastic, very stiff, dry, reddish brown clay was encountered from 20 to 24 feet bgl. The sampling was terminated at 24 feet bgl and the borehole was grouted. Groundwater was not observed in this boring.

SWMU 14-8

On July 19, 2012 location SWMU 14-8 was sampled using a hand auger. The samples were collected from the auger bucket. Three soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl (duplicate). Odors and discoloration were evident in the samples collected from 0 - 2 feet bgl. The highest PID reading (3,717 ppm) was observed from 1.5 - 2 feet bgl. The lithology encountered consisted of gravel / clay / sand from 0 - 2 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 14-9

On July 18, 2012 the drilling rig was set up on location SWMU 14-9. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Five soil samples were collected from 0 - 0.5 feet bgl (duplicate), 1.5 - 2 feet bgl, 4 - 6 feet bgl, and 13 - 14 feet bgl. Odors were apparent in the samples collected from 1 - 8 feet bgl. The highest PID reading (1959 ppm) was observed from 4 - 6 feet bgl.

The lithology encountered consisted of silt / gravel / clay fill from 0 - 4 feet bgl. A moderate to low plastic sandy / silty clay was encountered from 4 - 10 feet bgl. High plastic, stiff, brown clay was encountered from 10 - 13 feet bgl. The sampling was terminated at 14 feet bgl in low plastic, stiff, silty clay. The borehole was grouted. Groundwater was not observed in this boring.

SWMU 14-10

On July 19, 2012 location SWMU 14-10 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. No odors or discoloration were evident in the samples collected from SWMU 14-10. The highest PID reading (0.4 ppm) was observed from 1.5 - 2 feet bgl. The lithology encountered consisted of gravel / clay fill from 0 - 2 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 14-11

On July 19, 2012 location SWMU 14-11 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. No odors or discoloration were evident in the samples collected from SWMU 14-11. The highest PID reading (38.5 ppm) was observed from 1.5 - 2 feet bgl. The lithology encountered consisted of gravel / clay fill from 0 - 2 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 14-12

On July 19, 2012 location SWMU 14-12 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. Odors and discoloration were evident in the samples collected from 0 - 2 feet bgl. The highest PID reading (1,094 ppm) was observed from 1.5 - 2 feet bgl. The lithology

encountered consisted of high plastic, soft clay from 0 - 2 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 14-13

On July 19, 2012 location SWMU 14-13 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. Odors and discoloration were evident in the samples collected from 0 - 2 feet bgl. The highest PID reading (975 ppm) was observed from 1 - 2 feet bgl. The lithology encountered consisted of high plastic, soft clay from 0 - 2 feet bgl with a sand lens present from 0.75 - 1.25 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 14-14

On July 19, 2012 location SWMU 14-14 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. Odors and discoloration were evident in the samples collected from 0 - 2 feet bgl. The highest PID reading (1,028 ppm) was observed from 1 - 2 feet bgl. The lithology encountered consisted of low plastic, soft clay from 0 - 1 feet bgl and fine grain clayey sand from 1 - 2 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 14-15

On July 19, 2012 location SWMU 14-15 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. Odors and discoloration were evident in the sample collected from 1 - 2 feet bgl. The highest PID reading (5,000 ppm) was observed from 1 - 2 feet bgl. The lithology encountered consisted of sandy fill from 0 - 1 feet bgl and fine grain clayey sand from 1 - 2 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 14-16

On July 19, 2012 location SWMU 14-16 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. Odors and discoloration were evident in the sample collected from 1 - 2 feet

bgl. The highest PID reading (375.5 ppm) was observed from 1 - 2 feet bgl. The lithology encountered consisted of silt / sand fill from 0 - 1 feet bgl and high plastic clay from 1 - 2 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 14-17

On July 19, 2012 location SWMU 14-17 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. Odors and discoloration were evident in the sample collected from 1 - 2 feet bgl. The highest PID reading (898 ppm) was observed from 1 - 2 feet bgl. The lithology encountered consisted of silt / clay fill from 0 - 1 feet bgl and high plastic clay from 1 - 2 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 14-18

On July 19, 2012 location SWMU 14-18 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. Odors and discoloration were evident in the sample collected from 1 - 2 feet bgl. The highest PID reading (2,537 ppm) was observed from 1 - 2 feet bgl. The lithology encountered consisted of silt / sand / gravel fill from 0 - 1 feet bgl and fine grain clayey sand from 1 - 2 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 14-19

On July 19, 2012 location SWMU 14-19 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. No odors or discoloration were evident in the samples collected from SWMU 14-19. The highest PID reading (5.1 ppm) was observed from 1 - 2 feet bgl. The lithology encountered consisted of silt / sand / clay fill from 0 - 2 feet bgl. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 14-20

On July 19, 2012 location SWMU 14-20 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl

(duplicate). No odors or discoloration were evident in the sample collected from SWMU 14-20. A PID reading of 2.0 ppm was observed from 0 - 0.5 feet bgl. The lithology encountered consisted of very compacted gravel / sand fill. The boring was terminated at 0.5 feet bgl due to refusal. Soils not used for laboratory analyses were placed back in the borehole.

SWMU 14-21

On October 9, 2012 the drilling rig was set up on location SWMU 14-21. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Three soil samples were collected from 0 - 0.5 feet bgl, 1.5 - 2 feet bgl, and 8 - 10 feet bgl. No odors or discoloration were evident in the sample collected from SWMU 14-21. The highest PID reading (10.5 ppm) was observed from 0 - 1 feet bgl.

The lithology encountered consisted of low plastic silty clay from 0 - 10 feet bgl. The sampling was terminated at 10 feet bgl and the borehole was grouted. Groundwater was not observed in this boring.

SWMU 14-22

On October 9, 2012 the drilling rig was set up on location SWMU 14-22. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Five soil samples were collected from 0 - 0.5 feet bgl, 1.5 - 2 feet bgl, 4 - 6 feet bgl (duplicate) and 8 - 10 feet bgl. No odors or discoloration were evident in the sample collected from SWMU 14-22. The highest PID reading (7.9 ppm) was observed from 4 - 6 feet bgl.

The lithology encountered consisted of low to moderate plastic silty clay from 0 - 10 feet bgl. The sampling was terminated at 10 feet bgl and the borehole was grouted. Groundwater was not observed in this boring.

SWMU 14-23

On October 10, 2012 the drilling rig was set up on location SWMU 14-23. Sample collection was accomplished using the HSA drilling method and split spoon samplers. Four soil samples were collected from 0 - 0.5 feet bgl, 1.5 - 2 feet bgl, 12 - 14 feet bgl, and 14 - 16 feet bgl. Odors were apparent in the samples collected from 6 - 18 feet bgl. The highest PID reading (398 ppm) was observed from 12 - 14 feet bgl.

The lithology encountered consisted of silty clay fill from 0 - 6 feet bgl. A clayey silt / sand was encountered from 6 - 8 feet bgl. Moderate plastic, silty clay was encountered from 8 - 10 feet bgl. A high plastic silty clay was encountered from 10 - 16 feet bgl. Moderate plastic, very dense sandy clay was encountered from 16 to18 feet bgl with water observed within the sampling spoon. There was no recovery of the samples collected from 18 - 22 feet bgl. The boring was terminated at 22 feet bgl. A temporary well was installed with the screened interval being set from 15 - 20 feet bgl. The formation did not yield water to the well. The well was pulled on October 11, 2012 and the borehole was grouted.

SWMU 14-24

On October 17, 2012 location SWMU 14-24 was sampled using a hand auger. The samples were collected from the auger bucket. Two soil samples were collected from 0 - 0.5 feet bgl and 1.5 - 2 feet bgl. No odors or discoloration were evident in the samples collected from SWMU 14-24. The highest PID reading (4.0 ppm) was observed from 1 - 2 feet bgl. The lithology encountered consisted of a low plastic silty clay. The boring was terminated at 2 feet bgl. Soils not used for laboratory analyses were placed back in the borehole.

4.4 Monitoring Well Construction and Groundwater Sampling

This section describes the methods and details of monitoring well construction and the collection of groundwater samples. The description includes the dates of well construction. The wells and groundwater samples are discussed in numerical order of the associated soil borings. Copies of the boring and well construction logs are provided in Appendix D. The well development and purging procedures and groundwater sample collection procedures are discussed in Appendix B. The locations of the monitoring wells and borings from which groundwater samples were collected appear on Figures 2 and 3.

4.4.1 Aeration Basin

SWMU 1-2

On October 2, 2012 the drilling rig was set up on location SWMU 1-2. The soil boring was drilled using the HSA drilling method. No odors were evident from 0 - 16 feet bgl. Odors were evident from 16 - 19.5 feet bgl. The highest PID reading (7.2 ppm) was observed from 17 - 17.25 feet bgl. There was no recovery in the interval from 8 - 10 feet bgl, (the empty sampling spoon was dripping with water). Saturated, fine grain clayey sand was encountered from 10 - 11.5 feet bgl. Moderate to low plastic clay was encountered from 11.5 - 12 feet bgl.

Reddish brown, high plastic, firm clay was encountered from 12 - 14 feet bgl. A saturated, fine grain, clayey sand was encountered from 14 - 16 feet bgl. High plastic, firm, brown clay was encountered from 16 - 19.5 feet bgl. Two saturated, clayey sand seams were observed within the clay at 17 - 17.25 feet bgl and 18.50 - 18.75 feet bgl. A dense, dry, gray/reddish brown mudstone /sandstone (Petrified Forest Formation) was encountered from 19.5 - 20 feet bgl. A groundwater sample was collected from within the augers and the borehole was grouted.

SWMU 1-3

On October 2, 2012 the drilling rig was set up on location SWMU 1-3. The boring was completed using the HSA drilling method. No odors were evident in the samples collected from SWMU 1-3. The highest PID reading (21.3 ppm) was observed from 2 - 4 feet bgl. A saturated, clayey sand seam was encountered from 11 - 11.25 feet bgl. High plastic, firm, reddish brown clay was encountered from 11.25 - 17 feet bgl. A damp to saturated, sandy clay / clayey sand was encountered from 17 - 19.5 feet bgl. A very dense, dry, reddish brown mudstone (Petrified Forest Formation) was encountered from 19.5 - 20 feet bgl. A temporary well screen (two-inch rigid PVC with 0.01 inch slots) was installed at this location with the screened interval ranging from 15 - 20 feet bgl. A groundwater sample was collected on October 3, 2012. The well was pulled and the borehole was grouted.

SWMU 1-4

On October 3, 2012 the drilling rig was set up on location SWMU 1-4. The HSA drilling method was used to drill the soil boring. No odors were evident in the samples collected from 0 - 14 feet bgl. Odors were evident in the samples collected from 16 - 23 feet bgl. The highest PID reading (16.4 ppm) was observed from 17 - 18 feet bgl. A moist to saturated, clayey sand seam was encountered from 10 - 12 feet bgl. Silty clay was encountered from 12 - 14 feet bgl. There was no recovery in the interval from 14 - 16 feet bgl. Silty clay with black staining was encountered from 16 - 17 feet bgl. Moist to saturated sandy clay / clayey sand was encountered from 17 - 20 feet bgl. High plastic, reddish brown clay was encountered from 20 - 23 feet bgl. A dry, reddish brown / gray mudstone (Petrified Forest Formation) was encountered from 23 - 24 feet bgl. A temporary well screen (two-inch rigid PVC with 0.01 inch slots) was installed at this location with the screened interval ranging from 16 - 21 feet bgl. A groundwater sample (volatiles and semi-volatiles only were collected due to low sample volume) was collected on October 4, 2012. A groundwater sample (metals) was collected on October 5, 2012. The well was pulled and the borehole was grouted.

SWMU 1-5

On October 3, 2012 the drilling rig was set up on location SWMU 1-5. The soil boring was drilled using the HSA drilling method. No odors were evident in the samples collected from SWMU 1-5. The highest PID reading (16.1 ppm) was observed from 16 - 18 feet bgl. Silty clay extended from 0 - 10 feet bgl. Clayey sand / silty clay / sandy clay was encountered from 10 - 16 feet bgl. A low plastic, gravelly clay was encountered from 16 - 26 feet bgl. Saturated, clayey sand was encountered from 26 - 27 feet bgl. A very dense, dry, gray, weathered mudstone (Petrified Forest Formation) was encountered from 27 - 28 feet bgl. A temporary well screen (two-inch rigid PVC with 0.01 inch slots) was installed on October 4, 2012 at this location with the screened interval ranging from 23 - 28 feet bgl. A groundwater sample (volatiles and semi-volatiles only due to low sample volume) was collected on October 5, 2012. The well was pulled and the borehole was grouted.

SWMU 1-6

On October 4, 2012 the drilling rig was set up on location SWMU 1-6. The boring was completed using the HSA drilling method. No odors were evident in the samples collected from SWMU 1-6. The highest PID reading (37.5 ppm) was observed from 2 - 4 feet bgl. Silty clay / gravel extended from 0 - 4 feet bgl. Saturated clayey sand was encountered from 4 - 7.5 feet bgl. Silty clay was encountered from 7.5 - 9 feet bgl. Saturated clayey sand was encountered from 9 - 11 feet bgl. A very dense, dry, reddish brown and gray mudstone (Petrified Forest Formation) was encountered from 11 - 12 feet bgl. A temporary well screen (two-inch rigid PVC with 0.01 inch slots) was installed with the screened interval ranging from 7 - 12 feet bgl. A groundwater sample was collected. The well was pulled and the borehole was grouted on October 5, 2012.

SWMU 1-7

On October 4, 2012 the drilling rig was set up on location SWMU 1-7. The HSA drilling method was used to drill the soil boring. No odors were evident in the samples collected from SWMU 1-7. The highest PID reading (7.6 ppm) was observed from 0 - 2 feet bgl. Silty clay was present from 0 - 12 feet bgl. High plastic clay with saturated clayey sand seams was encountered from 12 - 16 feet bgl. A very dense, dry, reddish brown and gray clay / mudstone (Petrified Forest Formation) was encountered from 16 - 18 feet bgl. A temporary well screen (two-inch rigid PVC with 0.01 inch slots) was installed with the screened interval ranging from

13 - 18 feet bgl. A groundwater sample was collected. The well was pulled and the borehole was grouted on October 5, 2012.

SWMU 1-8

On October 5, 2012 the drilling rig was set up on location SWMU 1-8. The soil boring was completed using the HSA drilling method. Odors were evident in the samples collected from 4 - 6 feet bgl and 12 - 19 feet bgl. The highest PID reading (161 ppm) was observed from 12 - 14 feet bgl. Silty clay fill extended from 0 - 4 feet bgl. Saturated clayey sand was encountered from 4 - 6 feet bgl. Silty clay was encountered from 6 - 13 feet bgl. Saturated clayey sand was encountered from 13 - 19 feet bgl. A very dense, dry to damp, reddish brown / gray mudstone (Petrified Forest Formation) was encountered from 19 - 20 feet bgl. A temporary well screen (two-inch rigid PVC with 0.01 inch slots) was installed with the screened interval ranging from 13 - 18 feet bgl. A groundwater sample was collected. The well was pulled and the borehole was grouted on October 5, 2012.

SWMU 1-24

On October 8, 2012 the drilling rig was set up on location SWMU 1-24. This location was an additional deep boring installed between SWMU 1-4 to the south and SWMU 1-5 to the north to better define potential impacts in this area. The boring was completed using the HSA drilling method. Odors were evident in the samples collected from 18 - 32 feet bgl. The highest PID reading (28 ppm) was observed from 16 - 18 feet bgl. Silty clay fill extended from 0 - 16 feet bgl. Damp, clayey sand was encountered within the silty clay at the 10.5 - 11.5 feet bgl interval. Sandy clay / clayey sand was encountered from 16 - 20 feet bgl. Clayey silt was encountered from 20 - 24 feet bgl. The interval from 24 - 28 feet contained clayey silt and sand and was observed to be saturated to very moist. Black discoloration was also observed from 20 - 34 feet bgl. Damp, very dense clayey sand / gravel was encountered from 30 - 34 feet bgl. The boring terminated at 34 feet bgl. A temporary well screen (two-inch rigid PVC with 0.01 inch slots) was installed on October 9, 2012 with the screened interval ranging from 16 - 26 feet bgl. A groundwater sample was collected on October 10, 2012. The well was pulled and the borehole was grouted on October 11, 2012.

SWMU 1-37

On October 10, 2012 the drilling rig was set up on location SWMU 1-37. This was an additional deep boring installed southwest of boring SWMU1-2. The boring was completed using the HSA

drilling method. No odors were evident in the soil samples collected from SWMU 1-37. The highest PID reading (16.6 ppm) was observed from 6 - 8 feet bgl. Silty clay extended from 0 - 7 feet bgl. High plastic clay was encountered from 7 - 16 feet bgl. Encountered at 8.5 - 9 feet bgl and 12 - 13 feet bgl were saturated clayey sands. No discoloration or odors were associated with these sands. The boring was terminated in a very dense, dry, gray, clay / mudstone (Petrified Forest Formation) 18 feet bgl. A temporary well screen (two-inch rigid PVC with 0.01 inch slots) was installed with the screened interval ranging from 10 - 15 feet bgl. A groundwater sample was collected on October 11, 2012. The well was pulled and the borehole was grouted on October 11, 2012.

4.4.2 Old API Separator

SWMU 14-2 / OAPIS-1

On July 17, 2012 the drilling rig was set up on location SWMU 14-2. The boring was installed using the HSA drilling method. Odors were evident in the samples collected from 1.5 - 13 feet bgl. Discoloration was apparent from 1.5 - 13 feet bgl. The highest PID reading (330 ppm) was observed from 8 - 10 feet bgl. Clay / gravel extended from 0 - 1.5 feet bgl. Moderate plastic clay was encountered from 1.5 - 2 feet bgl. Low plastic, silty clay was encountered from 2 - 13 feet bgl. Moderate plastic, stiff, reddish brown clay was encountered from 13 - 25 feet bgl. A temporary well screen (two-inch rigid PVC with 0.01 inch slots) was installed with the screened interval ranging from 15 - 25 feet bgl. On July 19, 2012 a groundwater sample was collected from the well. The temporary PVC well was pulled on July 19, 2012.

A permanent well was subsequently installed at this location on July 19, 2012. In order to accommodate the screen placement, the borehole was advanced to a depth of 26 feet bgl. Slotted (0.01 inch) 2-inch rigid PVC well screen was placed at the bottom of the boring and extended for 10 feet (16.0 to 26.0 feet) to ensure that the entire saturated zone was open to the monitoring well. The 10/30 sand filter pack was installed to 2.0 feet over the top of the screen. As the sand was installed in the well bore the hollow stem augers were removed. Approximately 14 feet of bentonite was placed over the filter pack and hydrated. The surface completion consists of a stickup completion, which includes a protective PVC casing with cap that was secured in the concrete pad.

SWMU 14-3

On July 18, 2012 the drilling rig was set up on location SWMU 14-3. The boring was installed using the HSA drilling method. Odors were apparent in the soil samples collected from 2 - 20 feet bgl. Discoloration was apparent from 2 - 14 feet bgl. The highest PID reading (343 ppm) was observed from 8 - 10 feet bgl. Silty clay extended from 0 - 14 feet bgl. Moderate plastic clay was encountered from 14 - 24 feet bgl. Groundwater was observed in the sampling spoon from the 14 - 16 feet bgl interval. Low plastic silty clay was encountered from 24 - 26 feet bgl. The sampling was terminated at 26 feet bgl. A groundwater sample was collected from the augers and the borehole was grouted to the surface on the same day.

Section 5
Regulatory Criteria

The applicable screening and potential cleanup levels are specified in NMED's *Risk Assessment Guidance for Site Investigations and Remediation* dated February 2012, updated June 2012 and in the Environmental Protection Agency's (EPA) Regional Screening Levels dated November 2012.

For non-residential properties (e.g., the Gallup Refinery), the soil screening levels must be protective of commercial/industrial workers throughout the upper one foot of surface soils and construction workers throughout the upper ten feet based on NMED criteria. NMED residential soil screening levels are applied to the upper ten feet and soil screening levels for protection of groundwater apply throughout the vadose zone. EPA soil screening levels for direct contact exposure apply to the upper two feet of the vadose zone. To achieve closure as "corrective action complete without controls", the affected media must meet residential screening levels, which are presented in Table 4. Table 5 provides a list of the available NMED and EPA soil screening levels for non-residential properties. While Tables 4 and 5 indicate the various depths to which the individual soil screening levels are applicable, Tables 7 and 8 discussed below does not include this level of detail.

The groundwater cleanup levels are based on New Mexico Water Quality Control Commission (WQCC) standards (20.6.2.7 WW NMAC, 20.6.2.3103, and 20.6.2.4103) unless there is a federal maximum contaminant level (MCL), in which case the lower of the two values is selected as the cleanup level. If neither a WCQQ standard nor an MCL is available, then the cleanup level is based on a NMED Tap Water Screening Level. If a NMED Tap Water Screening Level is not available for a constituent, then an EPA Regional Screening Level is used. If an EPA Regional Screening Level is for a carcinogenic compound, then the screening level is multiplied by 10 to bring the risk level to 1E-05 to be consistent with the NMED screening levels. Table 6 presents the groundwater cleanup levels, with the applicable cleanup level highlighted.

The aforementioned Tables 4 and 5 have soil screening levels for the soil-to-groundwater pathway that are based on a dilution/attenuation factor (DAF) of 1.0 and 461. A review of site conditions indicates that a DAF of 1.0 is overly conservative, thus a site-specific DAF value was calculated. The documentation of the calculation of the site-specific DAF value is provided in Appendix C.

The screening levels that are compared to individual soil sample results from SWMU No. 1 (Aeration Basin) are presented in Table 7 and the soil samples results for SWMU No. 14 (OAPIS) are presented in Table 8. The screening levels included in Table 7 and 8 are based on residential and non-residential land use and include a screening level to evaluate the potential for constituents to migrate to groundwater using a site-specific DAF. For the non-residential screening levels, the lower of the construction worker scenario and commercial/industrial scenario screening levels for each constituent is included in the data tables if NMED screening levels are available. If NMED soil screening levels are not available for a particular constituent, then EPA soils screening levels are used. If an EPA soil screening level is for a carcinogenic compound, then the screening level is multiplied by 10 to bring the risk level to 1E-05 to be consistent with the NMED screening levels. The screening levels in Tables 7 and 8 have not been segregated based on depth of the soil sample as discussed above for Tables 4 and 5. The screening levels that are compared to individual groundwater sample results from SWMU No. 1 (Aeration Basin) are presented in Table 9 and the groundwater samples results for SWMU No. 14 (OAPIS) are presented in Table 10. It should also be noted that the soil sample results for chromium are compared to the screening levels for both chromium III and VI, as speciation has not been conducted to determine if the detected chromium is chromium III or chromium VI.

A review of the NMED guidelines for TPH indicates that the TPH screening levels were developed based on screening levels and compositional assumptions developed by the Massachusetts Department of Environmental Protection (MADEP). The analytical results, as presented in Tables 7 and 8, are reported for gasoline range organics (C6-C10), diesel range organics (>C10-C28), and motor oil range organics (>C28-C35). The applicable TPH screening levels for comparison to the individual samples are selected from Table 6-2 of the NMED guidance.

There are no soil screening levels for gasoline range organics and the individual compounds listed for groundwater (gasoline range criteria) are included in the list of analytes used for site samples. As there could have been a variety of petroleum types (e.g., crude oil or various refined products) going to the OAPIS and Aeration Basin, the screening level for "unknown oil" was selected for comparison to the diesel range soil and groundwater analytical results.

The laboratory analyses for motor oil range organics only report results for >C28 to C35. Since the motor oil range results only include hydrocarbons greater than C28, it is not appropriate to compare the results against screening levels for product types that have lower hydrocarbon

ranges (e.g., diesel fuel – 60% C11-C22 aromatics and 40% C9-C18 aliphatics). The only product type in Table 6-2 that contains the >C28-C35 carbon range is "waste oil", which includes C19-C36. Therefore, the motor oil range organic soil analytical results are compared to the "waste oil" soil screening levels. The NMED guidance specifies the inclusion of "petroleum-related contaminants" as the groundwater criteria for waste oil instead of a motor oil range screening level and these constituents are included in the list of reported analytes in Tables 9 and 10.

Some of the individual constituents reported by the laboratory do not have screening levels but were all non-detect with respect to soil, except 4-isopropyltoluene, 4-nitrophenol, 3+4-methylphenol, and sec-butylbenzene. With respect to groundwater, there were also detections of constituents that do not have screening levels. The constituents detected in groundwater that do not have screening levels include, 4-isopropyltoluene, 3+4-methylphenol, 2-nitrophenol, 4-nitrophenol, sec-butylbenzene. None of these 10 constituents are classified as a carcinogen.

Section 6
Site Impacts

This section discusses the chemical analyses performed and presents the analytical results that were obtained through the analysis of soil and groundwater samples, which were collected at the Aeration Basin and OAPIS. The results for soils and groundwater analyses are presented and compared to applicable screening levels, as described in Section 5.0.

6.1 Soil Analytical Results

Soil samples were analyzed by Hall Environmental Analysis Laboratory in Albuquerque, New Mexico using the following methods for organic constituents:

- SW-846 Method 8260 volatile organic compounds;
- SW-846 Method 8270 semi-volatile organic compounds; and
- SW-846 Method 8015B gasoline, diesel, and motor oil range petroleum hydrocarbons.

Soil samples were analyzed for the following metals using the indicated analytical methods, respectively.

Analyte	Analytical Method
Antimony	SW-846 method 6010
Arsenic	SW-846 method 6010
Barium	SW-846 method 6010
Beryllium	SW-846 method 6010
Cadmium	SW-846 method 6010
Chromium	SW-846 method 6010
Cobalt	SW-846 method 6010
Cyanide	SW-846 method 335.3/335.2 mod
Iron	SW-846 method 6010
Lead	SW-846 method 6010
Mercury	SW-846 method 7470/7471
Manganese	SW-846 method 6010
Nickel	SW-846 method 6010
Selenium	SW-846 method 6010
Silver	SW-846 method 6010
Vanadium	SW-846 method 6010
Zinc	SW-846 method 6010

The analytical results for soil samples collected at the Aeration Basin are summarized in Table 7 and the results for soils collected at the OAPIS are summarized in Table 8. The individual results that exceed the applicable cleanup levels are highlighted, as noted in the table footnotes. Maps showing the distribution of constituents detected in soils above screening levels are included as Figures 12 – 29. The concentrations shown on Figures 12 – 29 that exceed the screening levels in Tables 7 and 8 are underlined on the figures [i.e., concentrations above residential and/or DAF (461) screening levels]. The laboratory analytical reports are included in Appendix E and the data validation of the results, which includes the analytical results for the associated QA/QC samples, is included in Appendix F.

The constituents that have concentrations in soils above screening levels as measured in samples collected from within either the Aeration Basin or the OAPIS are discussed below. The results for the Aeration Basin are presented first, followed by the results for the OAPIS.

6.1.1 Aeration Basin Soil Results

1,2,4-Trimethlybenzene was detected in one sample [SWMU 1-1 (2-4')] at a concentration above the DAF screening level (9.68 mg/kg) but none of the results exceed the residential screening level (62 mg/kg). The detected concentrations range from 0.00104 mg/kg to 44 mg/kg and are shown on Figure 12.

1-Methylnaphthalene was detected in two soil samples [SWMU 1-1 (2 - 4') and SWMU 1-1 (10 - 12')] at concentrations above the DAF screening level of 2.35 mg/kg. The detected concentrations range from 0.0456 to 35 mg/kg and do not exceed either the residential or non-residential (i.e., industrial and construction worker) screening levels. The analytical results are shown on Figure 13.

Benzene was detected in two soil samples [SWMU 1-1 (2 - 4') and SWMU 1-28 (1.5 - 2.0')] at concentrations above the DAF screening level (0.796 mg/kg) but none of the results exceed the residential or non-residential soil screening levels. The detected concentrations range from 0.00109 mg/kg to 3.2 mg/kg and are presented on Figure 14.

Naphthalene was detected in one sample [SWMU 1-1 (2 - 4')] at a concentration of 13 mg/kg, which exceeds the DAF screening level of 1.64 mg/kg, but does not exceed the residential or non-residential screening levels. The naphthalene concentrations are shown on Figure 15.

Diesel Range Organics (DRO) was detected in one sample [SWMU 1-1 (2 - 4')] at a concentration of 4,700 mg/kg, which exceeds the screening level of 1,000 mg/kg. The detected results ranged from 12 to 4,700 mg/kg and are shown on Figure 16.

6.1.2 Old API Separator Soil Results

1,1,2-Trichloroethane was detected in one sample [SWMU 14-17 (1.5 – 2')] at a concentration (1.0 mg/kg), which exceeds the DAF screening level (0.0514 mg/kg) but did not exceed the residential or non-residential screening levels. The 1,1,2-trichloroethane analytical results are shown on Figure 17.

1,2,4-Trimethlybenzene was detected in eight samples [SWMU 14-6 (10 - 12'), SWMU 14-7 (6 - 8'), SWMU 14-12 (0 - 0.5'), SWMU 14-12 (1.5 – 2.0'), SWMU 14-14 (0 - 0.5'), SWMU 14-15 (1.5 – 2.0'), SWMU 14-17 (1.5 – 2.0'), and SWMU 14-18 (1.5 – 2.0')] at concentrations above the DAF screening level (9.68 mg/kg) but none exceed the residential or non-residential screening levels. The detected concentrations range from 0.000507 mg/kg to 44 mg/kg and are shown on Figure 18.

1,2-Dibromo-3-chloropropane was detected in three samples [SWMU 14-7 (0 - 0.5'), SWMU 14-7 (1.5 – 2.0'), and SWMU 14-12 (0 – 0.5')] at concentrations above all the screening levels in one sample but only above the DAF screening level in two of the samples. The detected concentrations range from 0.000593 mg/kg to 2.2 mg/kg and are shown on Figure 19.

1,2-Dibromoethane (EDB) was detected in 18 samples [SWMU 14-2 (1.5 – 2.0'), SWMU 14-2 (8 - 10'), SWMU 14-3 (12 - 14'), SWMU 14-3 (8 - 10'), SWMU 14-4 (10 - 12'), SWMU 14-7 (0 - 0.5'), SWMU 14-7 (6 - 8'), SWMU 14-8 (1.5 -2.0'), SWMU 14-9 (4 - 6'), SWMU 14-12 (0 - 0.5'), SWMU 14-12 (1.5 – 2.0'), SWMU 14-13 (0 - 0.5'), SWMU 14-13 (1.5 – 2.0'), SWMU 14-14 (0-0.5'), SWMU 14-14 (1.5 – 2.0'), SWMU 14-16 (1.5 – 2.0'), SWMU 14-17 (1.5 – 2.0'), and SWMU 14-18 (1.5 – 2.0')] at concentrations above the DAF screening level (0.0071 mg/kg) with three sample results above the residential screening level. The detected concentrations range from 0.12 mg/kg to 1.2 mg/kg and are shown on Figure 20.

1,2-Dichloropropane was detected in two samples [SWMU 14-12 (0 – 0.5') and SWMU14-18 (1.5 – 2.0')] at concentrations above the DAF screening level (0.494 mg/kg) but none exceed the residential or non-residential screening levels. The detected concentrations range from 0.089 mg/kg to 0.82 mg/kg and are shown on Figure 21.

1-Methylnaphthalene was detected in 18 samples [SWMU 14-2 (1.5 – 2.0'), SWMU 14-2 (8 - 10'), SWMU 14-3 (12 - 14'), SWMU 14-3 (8 - 10'), SWMU 14-4 (10 - 12'), SWMU 14-6 (10 - 12'), SWMU 14-7 (6 - 8'), SWMU 14-9 (4 - 6'), SWMU 14-12 (0 - 0.5'), SWMU 14-12 (1.5 – 2.0'), SWMU 14-13 (0 - 0.5'), SWMU 14-13 (1.5 – 2.0'), SWMU 14-14 (0 - 0.5'), SWMU 14-14 (1.5 - 2.0'), SWMU 14-15 (1.5 - 2.0'), SWMU 14-16 (1.5 – 2.0'), SWMU 14-17 (1.5 – 2.0'), and SWMU 14-18 (1.5 -2.0')] at concentrations above the DAF screening level (2.35 mg/kg), but none exceed the non-residential or residential screening levels. The detected concentrations range from 0.000458 mg/kg to 45 mg/kg and are shown on Figure 22.

2-Methylnaphthalene was detected in one sample [SWMU 14-4 (10 – 12')] at a concentration of 90.0 mg/kg, which exceeds the DAF screening level (64.5 mg/kg) but did not exceed the residential or non-residential screening levels. The 2-methylnaphthalene analytical results are shown on Figure 23.

Benzene was detected in nine samples [SWMU 14-6 (10 - 12'), SWMU 14-7 (6-8'), SWMU 14-12 (0 - 0.5'), SWMU 14-12 (1.5 – 2.0'), SWMU 14-14 (1.5 – 2.0'), SWMU 14-15 (1.5 - 2.0'), SWMU 14-17 (1.5 – 2.0'), SWMU 14-18 (1.5 – 2.0'), and SWMU 14-23 (12 - 14')] at concentrations above the DAF screening level (0.796 mg/kg), but none exceed the non-residential or residential screening levels. The detected concentrations range from 0.00072 mg/kg to 5.9 mg/kg and are shown on Figure 24.

Ethylbenzene was detected in six samples [SWMU 14-6 (10 - 12'), SWMU 14-12 (0 - 0.5'), SWMU 14-12 (1.5 – 2.0'), SWMU 14-15 (1.5 - 2.0'), SWMU 14-17 (1.5 – 2.0'), and SWMU 14-18 (1.5 – 2.0')] at concentrations above the DAF screening level (5.98 mg/kg), but none exceed the non-residential or residential screening levels. The detected concentrations range from 0.000542 mg/kg to 23 mg/kg and are shown on Figure 25.

Naphthalene was detected in 14 samples [SWMU 14-2 (8 - 10'), SWMU 14-3 (12 - 14'), SWMU 14-3 (8 - 10'), SWMU 14-4 (10 - 12'), SWMU 14-6 (10 - 12'), SWMU 14-7 (6 - 8'), SWMU 14-12 (0 - 0.5'), SWMU 14-12 (1.5 – 2.0'), SWMU 14-13 (0 - 0.5'), SWMU 14-14 (0 - 0.5'), SWMU 14-15 (1.5 - 2.0'), SWMU 14-16 (1.5 – 2.0'), SWMU 14-17 (1.5 – 2.0'), and SWMU 14-18 (1.5 – 2.0')] at concentrations above the DAF screening level (1.64 mg/kg), but none exceed the non-residential or residential screening levels. The detected concentrations range from 0.000458 mg/kg to 17 mg/kg and are shown on Figure 26.

Xylenes were detected in two samples [SWMU 14-12 (0 - 0.5'), and SWMU 14-15 (1.5 - 2.0')] at concentrations above the DAF screening level (72.1 mg/kg), but none exceed the non-residential or residential screening levels. The detected concentrations range from 0.00282 mg/kg to120 mg/kg and are shown on Figure 27.

Bis(2-chloroethyl)ether was detected in two samples [SWMU 14-9 (4 - 6') and SWMU 14-15 (1.5 - 2.0')] at concentrations above the DAF screening level (0.0121 mg/kg), but none exceed the non-residential or residential screening levels. The detected concentrations range from 0.18 mg/kg to 0.43 mg/kg and are shown on Figure 28.

DRO was detected in 21 samples [SWMU 14-2 (1.5 – 2.0'), SWMU 14-2 (8 - 10'), SWMU 14-3 (8 - 10'), SWMU 14-6 (10 - 12'), SWMU 14-7 (0 - 0.5'), SWMU 14-7 (1.5 – 2.0'), SWMU 14-8 (1.5 – 2.0'), SWMU 14-9 (1.5 – 2.0'), SWMU 14-9 (4 - 6'), SWMU 14-12 (0 - 0.5'), SWMU 14-12 (1.5 – 2.0'), SWMU 14-13 (1.5 – 2.0'), SWMU 14-14 (0 - 0.5'), SWMU 14-14 (1.5 – 2.0'), SWMU 14-15 (0 - 0.5'), SWMU 14-15 (1.5 - 2.0'), SWMU 14-16 (1.5 – 2'), SWMU 14-7 (0 - 0.5'), SWMU 14-17 (1.5 – 2.0'), SWMU 14-18 (0 - 0.5'), and SWMU 14-18 (1.5 – 2.0')] at concentrations above the DAF screening level (2.35 mg/kg), but none exceed the non-residential or residential screening levels. The detected concentrations range from 0.000458 mg/kg to 45 mg/kg and are shown on Figure 29.

6.2 Groundwater Analytical Results

The groundwater samples were analyzed for organic constituents by the following methods:

- SW-846 Method 8260 volatile organic compounds;
- SW-846 Method 8270 semi-volatile organic compounds; and
- SW-846 Method 8015B gasoline, diesel, and motor oil range organics.

Groundwater samples were analyzed for the following metals using the indicated analytical methods.

Analyte	Analytical Method
Antimony	SW-846 method 200.8
Arsenic	SW-846 method 200.8
Barium	SW-846 method 200.7
Beryllium	SW-846 method 200.7
Cadmium	SW-846 method 200.7
Chromium	SW-846 method 200.7
Cobalt	SW-846 method 200.7

Analyte	Analytical Method
Cyanide	SW*--846 method 335.3/335.2 mod
Lead	SW-846 method 200.8
Mercury	SW-846 method 200.7
Nickel	SW-846 method 200.7
Selenium	SW-846 method 200.8
Silver	SW-846 method 200.7
Vanadium	SW-846 method 200.7
Zinc	SW-846 method 200.7

In addition, groundwater samples were analyzed for chloride, fluoride, and sulfate using EPA method 300.

The analytical results and the applicable cleanup levels are presented in Tables 9 and 10. The individual results that exceed the applicable cleanup levels are highlighted. Maps depicting the distribution of the various constituents detected in groundwater samples above the screening levels are provided in Figures 30 and 31. The concentrations shown on Figures 30 and 31 that exceed the screening levels are underlined on the figures. The results for the associated QA/QC samples and the data validation are provided in Appendix F. The laboratory analytical reports are included in Appendix E.

6.2.1 Aeration Basin Groundwater Results

All of the groundwater samples collected at the Aeration Basin were collected from temporary well completions and there are numerous metals detected at concentrations above their respective screening levels. Arsenic was detected above the screening level of 0.01 mg/l in seven samples (SWMU 1-2 GW, SWMU 1-3 GW, SWMU 1-4 GW, SWMU 1-6 GW, SWMU 1-7 GW, SWMU 1-8 GW, and SWMU 1-24 GW). The detected concentrations range from 0.0082 mg/l to 0.063 mg/l and are shown on Figure 30.

Barium was detected above the screening level of 1.0 mg/l in six samples (SWMU 1-2 GW, SWMU 1-4 GW, SWMU 1-6 GW, SWMU 1-7 GW, SWMU 1-8 GW, and SWMU 1-24 GW). The detected concentrations range from 0.24 mg/l to 56 mg/l and are shown on Figure 30.

Beryllium was detected above the screening level of 0.004 mg/l in six samples (SWMU 1-2 GW, SWMU 1-3 GW, SWMU 1-6 GW, SWMU 1-7 GW, SWMU 1-8 GW, and SWMU 1-24 GW). The detected concentrations range from 0.0065 mg/l to 0.21 mg/l.

Chromium (total) was detected above the screening level of 0.05 mg/l in five samples (SWMU 1-2 GW, SWMU 1-6 GW, SWMU 1-7 GW, SWMU 1-8 GW, and SWMU 1-24 GW). The detected concentrations range from 0.015 mg/l to 0.31 mg/l.

Cobalt was detected above the screening level of 0.05 mg/l in five samples (SWMU 1-2 GW, SWMU 1-6 GW, SWMU 1-7 GW, SWMU 1-8 GW, and SWMU 1-24 GW). The detected concentrations range from 0.011 mg/l to 0.53 mg/l.

Iron (total) was detected above the screening level of 1.0 mg/l in seven samples (SWMU 1-2 GW, SWMU 1-3 GW, SWMU 1-6 GW, SWMU 1-7 GW, SWMU 1-8 GW, SWMU 1-24 GW, and SWMU 1-37 GW). The detected concentrations range from 0.32 mg/l to 160 mg/l.

Lead was detected above the screening level of 0.015 mg/l in six samples (SWMU 1-2 GW, SWMU 1-3 GW, SWMU 1-6 GW, SWMU 1-7 GW, SWMU 1-8 GW, and SWMU 1-24 GW). The detected concentrations range from 0.0041 mg/l to 1.7 mg/l and are shown on Figure 30.

Manganese was detected above the screening level of 0.2 mg/l in seven samples (SWMU 1-2 GW, SWMU 1-3 GW, SWMU 1-4 GW, SWMU 1-6 GW, SWMU 1-7 GW, SWMU 1-8 GW, SWMU 1-24 GW, and SWMU 1-37 GW). The detected concentrations range from 0.99 mg/l to 95 mg/l and are shown on Figure 30.

Nickel was detected above the screening level of 0.2 mg/l in six samples (SWMU 1-2 GW, SWMU 1-3 GW, SWMU 1-6 GW, SWMU 1-7 GW, SWMU 1-24 GW, and SWMU 1-37 GW). The detected concentrations range from 0.11 mg/l to 0.95 mg/l and are shown on Figure 30.

Selenium was detected above the screening level of 0.05 mg/l in one sample (SWMU 1-2 GW). The detected concentrations range from 0.0072 mg/l to 0.059 mg/l.

Vanadium was detected above the screening level of 0.183 mg/l in one sample (SWMU 1-24 GW). Only the one sample had a detected concentration of 0.2 mg/l.

Fluoride was detected above the screening level of 1.6 mg/l in four samples (SWMU 1-2 GW, SWMU 1-4 GW, SWMU 1-6 GW, and SWMU 1-24 GW). The detected concentrations range from 0.78 mg/l to 13 mg/l.

1,2,4-Trimethylbenzene was detected above the screening level of 0.015 mg/l in one sample (SWMU 1-4 GW). The detected concentrations range from 0.0069 mg/l to 0.032 mg/l and are shown on Figure 31.

1-Methylnaphthalene was detected above the screening level of 0.0097 mg/l in three samples (SWMU 1-4 GW, SWMU 1-8 GW and SWMU 1-24). The detected concentrations range from 0.0098 mg/l to 0.011 mg/l and are shown on Figure 31.

Benzene was detected above the screening level of 0.005 mg/l in three samples (SWMU 1-2 GW, SWMU 1-4 GW, and SWMU 1-24 GW). The detected concentrations range from 0.0011 mg/l to 0.024 mg/l and are shown on Figure 31.

Methyl tert-butyl ether (MTBE) was detected above the screening level of 0.125 mg/l in two samples (SWMU 1-8 GW and SWMU 1-37 GW). The detected concentrations range from 0.014 mg/l to 0.31 mg/l and are shown on Figure 31.

Naphthalene was detected above the screening level of 0.00143 mg/l in three samples (SWMU 1-4 GW, SWMU 1-8 GW, and SWMU 1-24 GW). The detected concentrations range from 0.0023 mg/l to 0.032 mg/l and are shown on Figure 31.

2,4-Dimethylphenol was detected above the screening level of 0.73 mg/l in one sample (SWMU 1-4 GW). The detected concentrations range from 0.026 mg/l to 0.85 mg/l and are shown on Figure 31.

DRO was detected above the screening level of 0.2 mg/l in four samples (SWMU 1-4 GW, SWMU 1-6 GW, SWMU 1-24 GW, and SWMU 1-37 GW). The detected concentrations range from 1.0 mg/l to 4.4 mg/l and the results are shown on Figure 31.

6.2.2 Old API Separator Groundwater Results

Two of the groundwater samples (SWMU 14-2 GW and SWMU 14-3 GW) were collected from temporary well completions and a third groundwater sample (SWMU 14-OAPIS-1 GW) was collected from a permanent well completion installed in soil boring SWMU 14-2. There are numerous metals detected at concentrations above their respective screening levels in the two groundwater samples collected from the temporary well completions, but only two metals above screening levels in the sample collected from the permanent well. Arsenic was detected above

the screening level of 0.01 mg/l in two samples (SWMU 14-2 GW and SWMU 14-3 GW. The detected concentrations range from 0.012 mg/l to 0.024 mg/l and are shown on Figure 30.

Barium was detected above the screening level of 1.0 mg/l in one sample (SWMU 14-3 GW). The detected concentrations range from 0.54 mg/l to 2.8 mg/l and are shown on Figure 30.

Beryllium was detected above the screening level of 0.004 mg/l in one sample (SWMU 14-3 GW). The detected concentrations range from 0.0021 mg/l to 0.042 mg/l.

Chromium (total) was detected above the screening level of 0.05 mg/l in two samples (SWMU 14-2 GW and SWMU 14-3 GW). The detected concentrations range from 0.012 mg/l to 0.38 mg/l.

Cobalt was detected above the screening level of 0.05 mg/l in one sample (SWMU 14-3 GW). The detected concentrations range from 0.038 mg/l to 0.12 mg/l.

Cyanide was detected above the screening level of 0.2 mg/l in one sample (SWMU 14-2 GW). The detected concentrations range from 0.09 mg/l to 0.216 mg/l.

Iron was detected above the screening level of 1.0 mg/l in three samples (SWMU 14-2 GW, SWMU 14-3 GW, and SWMU 14-OAPIS-1 GW). The detected concentrations range from 5.6 mg/l to 120 mg/l.

Lead was detected above the screening level of 0.015 mg/l in two samples (SWMU 14-2 GW and SWMU 14-3 GW). The detected concentrations range from 0.044 mg/l to 0.19 mg/l and are shown on Figure 30.

Manganese was detected above the screening level of 0.2 mg/l in three samples (SWMU 14-2 GW, SWMU 14-3 GW, and SWMU 14-OAPIS-1 GW). The detected concentrations range from 1.3 mg/l to 45 mg/l and are shown on Figure 30.

Vanadium was detected above the screening level of 0.183 mg/l in one sample (SWMU 14-3 GW). The detected concentrations range from 0.029 mg/l to 0.52 mg/l.

I,2,4-Trimethylbenzene was detected above the screening level of 0.015 mg/l in two samples (SWMU 14-2 GW and SWMU 14-3 GW). The detected concentrations range from 0.082 mg/l to 0.085 mg/l and are shown on Figure 31.

1-Methylnaphthalene was detected above the screening level of 0.0097 mg/l in two samples (SWMU 14-2 GW and SWMU 14-3 GW). The detected concentrations range from 0.061 mg/l to 0.17 mg/l and are shown on Figure 31.

2-Methylnaphthalene was detected above the screening level of 0.027 mg/l in two samples (SWMU 14-2 GW and SWMU 14-3 GW). The detected concentrations range from 0.039 mg/l to 0.11 mg/l and are shown on Figure 31.

Benzene was detected above the screening level of 0.005 mg/l in three samples (SWMU 14-2 GW, SWMU 14-3 GW, and SWMU 14-OAPIS-1 GW). The detected concentrations range from 0.013 mg/l to 0.097 mg/l and are shown on Figure 31.

MTBE was detected above the screening level of 0.125 mg/l in three samples (SWMU 14-2 GW SWMU 14-3 GW, and SWMU 14-OAPIS-1 GW). The detected concentrations range from 0.25 mg/l to 0.44 mg/l and are shown on Figure 31.

Methylene chloride was detected above the screening level of 0.005 mg/l in one sample (SWMU 14-3 GW). It was detected in only the one sample at a concentration of 0.0075 mg/l.

Naphthalene was detected above the screening level of 0.00143 mg/l in two samples (SWMU 14-2 GW and SWMU 14-3 GW). The detected concentrations range from 0.042 mg/l to 0.045 mg/l and are shown on Figure 31.

DRO was detected above the screening level of 0.2 mg/l in two samples (SWMU 14-2 GW and SWMU 14-OAPIS-1 GW). The detected concentrations range from 6.5 mg/l to 83 mg/l and are shown on Figure 31.

6.3 General Groundwater Chemistry

The measurement of field purging parameters included measurement of groundwater pH, specific conductance, dissolved oxygen concentrations, oxidation-reduction potential, and temperature. The results of the measurements are included in Table 11 and fluid levels measured prior to purging are presented in Table 12.

Section 7
Conclusions and Recommendations

This section summarizes and provides an evaluation of the potential impacts as shown in field screening data and analytical data. This is followed by recommendations for any future actions.

7.1 Conclusions

A cumulative risk evaluation for soils is presented in Table 13. Because the Aeration Basin and OAPIS are located adjacent to each other, the cumulative risk evaluation combines the data for both SWMUs. The evaluation was conducted by taking the maximum reported soil concentration of each detected constituent and dividing by the residential screening level and non-residential screening levels as shown in the equations below. These calculations are separated for carcinogenic and non-carcinogenic constituents. The cumulative carcinogenic risk is 1.4×10^{-3} assuming residential land use and 9.3×10^{-5} for non-residential land use. The hazard index for residential land use is 1.5 and for non-residential land use is 0.41.

$$Site\ Risk = \left(\frac{conc_x}{SSL_x} + \frac{conc_y}{SSL_y} + \frac{conc_z}{SSL_z} + \cdots + \frac{conc_i}{SSL_i}\right) \times 10^{-5}$$

$$Site\ Hazard\ Index\ (HI) = \left(\frac{conc_x}{SSL_x} + \frac{conc_y}{SSL_y} + \frac{conc_z}{SSL_z} + \cdots + \frac{conc_i}{SSL_i}\right) \times 1$$

A cumulative risk evaluation for groundwater is presented in Table 14. As was done for soils, the risk evaluation combines the data for the Aeration Basin and the OAPIS. The evaluation was conducted by taking the maximum reported concentration of each constituent detected in groundwater, which is based on the totals analyses for metals, and dividing by the residential screening levels, as shown in equation above in the discussion for soil. These calculations are separated for carcinogenic and non-carcinogenic constituents. The cumulative carcinogenic risk level is calculated to be 2.2×10^{-3} and the hazard index is 909.53.

7.1.1 Aeration Basin

Soils

Four organic constituents (1,2,4-trimethylbenzene, 1-methylnaphthalene, benzene, and naphthalene), and DRO were detected in three soil samples at concentrations exceeding their

respective screening levels. Two of the soil samples with constituents detected at concentrations above the screening levels are found in soil boring SWMU 1-1, which is located on the southeastern boundary of the Aeration Basin. The sample intervals with concentrations above the screening level include 2-4' and 10-12', with most exceedences in the 2-4' interval. The 2-4' interval is logged as fill material composed of silty clay and the deeper 10-12' interval is clay. This boring was terminated at 14 feet, after encountering bedrock at 13' bgl. There was no indication of saturated conditions in this boring; however, contaminants have migrated to this location immediately adjacent to the Aeration Basin. Similar constituents are found in soils investigated a short distance to the south, near the OAPIS (see Section 7.1.2 below).

Benzene was the only constituent detected above screening level in soil boring SWMU 1-28 at a depth of 1.5 – 2.0' bgl (2.53 mg/kg vs. 0.796 mg/kg). Soil boring SWMU 1-28 is located on the northern boundary of the Aeration Basin and the 1.5 – 2.0' interval is composed of a clayey gravelly sand, which was damp, but not saturated. The boring was terminated at 4 feet bgl in the same material. The PID readings were low and there was no odor throughout the boring. Boring SWMU 1-28 was originally scheduled as a hand auger location, but it was completed with the HSA drilling rig to allow penetration below 2 feet in order to assess potential impacts observed in the adjacent deep soil boring (SWMU 1-6). Boring SWMU 1-6 had an elevated PID reading of 37.5 ppm in the 2-4 interval; however, no constituents exceeded the screening levels in the soil samples collected from 2-4' or 4-6' intervals in boring SWMU 1-6.

Overall, there were few exceedences of the screening levels in the soil samples collected around the Aeration Basin. Only 3 out of 103 soil samples collected around the Aeration Basin exceeded screening levels. The vertical impacts to soil were found to extend to the uppermost groundwater-bearing horizons in some borings around the Aeration Basin as discussed below.

Groundwater

There are a seemingly large number of metals detected at concentrations above screening levels in groundwater samples collected from the soil borings that surround the Aeration Basin. The metal screening levels were exceeded in every soil boring from which a groundwater sample was collected. It is possible that these results are affected by high turbidity levels in the water samples collected from the temporary well completions installed in the soil borings.

Seven organic constituents (1-methylnaphthalene, 2-methylnaphthalene, 1,2,4-trimethlybenzene, benzene, MTBE, naphthalene, and 2,4-dimethylphenol), and DRO were

detected in groundwater samples collected from soil borings at concentrations above screening levels. At least one organic constituent was found at concentrations above the screening levels in borings SWMU 1-2, SWMU 1-4, SWMU 1-6, SWMU 1-8, SWMU 1-24, and SWMU 1-37. Soil boring SWMU 1-1 was installed near the southeast corner of the Aeration Basin and encountered bedrock at a depth of 13 feet bgl, but groundwater was not present at this location.

Soil boring SWMU 1-2 was drilled along the southwest side of the Aeration Basin and encountered bedrock at a depth of 19.5 feet bgl. There were several saturated soil intervals encountered in this boring including clayey sand from 8 to 11 feet, 14 to16 feet, 17 to 17.25 feet, and 18.25 to18.5 feet bgl. Benzene was the only organic constituent detected at a concentration above the screening level in SWMU 1-2 (0.017 mg/l vs. 0.005 mg/l). Additional soil boring SWMU 1-37 was installed southwest of the Aeration Basin to delineate potential impacts observed when drilling soil boring SWMU 1-2. Benzene did decrease to below the screening level in the groundwater sample collected at SWMU 1-37, but MTBE increased to a concentration slightly over the screening level (0.13 mg/l vs. 0.125 mg/l) and DRO was detected at 1.0 mg/l, which exceeds the screening level of 0.2 mg/l. In boring SWMU 1-37, bedrock was encountered at 16 feet bgl and two intervals of saturated clayey sand were present at 8.5 - 9 feet and 12 - 13 feet bgl.

Moving further around the edge of the Aeration Basin to just north of the southwest corner, SWMU 1-3 was drilled to bedrock at a depth of 19.5 feet bgl. A thin clayey sand zone at 11-11.25 feet and a second at 18-19.5 feet were both saturated in boring SWMU 1-3. None of the organic constituents exceeded their screening levels at SWMU 1-3. The stratigraphic relationship between the clayey sand zones appearing in SWMU 1-2, SWMU 1-3, SWMU 1-24, and SWMU 1-5 appear on cross section C-C' (Figure 8).

The next deep soil boring drilled (SWMU 1-4) is located further north, on the west side of the Aeration Basin. This boring encountered bedrock at a depth of 23 feet bgl and had saturated intervals of clayey sand at 10-12 feet and clayey sand/sandy clay at 17-20 feet bgl. Six organic constituents (benzene, 2,4-dimethylphenol, 1-methylnaphthalene, 2-methylnaphthalene, 1,2,4-trimethylbenzene, and naphthalene) and DRO were found at concentrations in groundwater above their screening levels. Based on the field indication of impacts at SWMU 1-4, an additional soil boring (SWMU 1-24) was completed between SWMU 1-4 and SWMU 1-5. SWMU 1-24 was drilled to a depth of 34 feet, but bedrock was not encountered. A saturated interval of clayey silt/sand was identified from 24 to 28 feet bgl. A groundwater sample collected

from this boring found benzene, 1-methylnaphthalene, DRO, and naphthalene at concentrations above their screening levels.

Based on the field evidence of potential impacts at borings SWMU 1-4 and SWMU 1-24, two additional soil borings (SWMU 1-20 and SWMU 1-38) were drilled west of the Aeration Basin. At location SWMU 1-20 (located southwest of SWMU 1-4), bedrock was encountered at a depth of only 10 feet bgl and there was no indication of saturation in the boring or the clayey sand deposits, which were identified in SWMU 1-4. No groundwater sample was collected at SWMU 1-20 as the boring was dry. Soil boring SWMU 1-38 was drilled west-northwest of SWMU 1-4 and bedrock was encountered at a depth of only 6 feet bgl. Once again, the clayey sand deposits, which were saturated in boring SWMU 1-4, were not present at this location to the west of the Aeration Basin. No groundwater sample was collected at SWMU 1-38 because the boring was dry. Based on the results of borings SWMU 1-20 and SWMU 1-38, it does not appear that the saturated zones found in SWMU 1-4 and SWMU 1-24 extend beyond the base of the slope on the west side of the Aeration Basin where borings SWMU 1-20 and SWMU 1-38 were completed.

Soil boring SWMU 1-5 was drilled on the northwest corner of the Aeration Basin where bedrock was encountered at a depth of 27 feet bgl. A thin layer of saturated clayey sand (26 - 27' bgl) was identified on top of the bedrock. The temporary well completion produced very little water and no organic constituents were detected above their screening levels.

Soil boring SWMU 1-6 was drilled along the northern edge of the Aeration Basin and bedrock was found at a depth of 11 feet bgl. Two saturated clayey sand zones were identified at 4 - 6 feet and 10 - 11 feet bgl. DRO was the only organic analysis to exceed the screening level.

On the east side of the Aeration Basin, approximately 150 feet south of the northern most extent of the Aeration Basin, soil boring SWMU 1-7 was drilled to a depth of 18 feet bgl. Bedrock was encountered at 16 feet bgl. The only indication of saturation was in thin sand seams in the clay that immediately overlies the bedrock. No organic constituents were found to exceed their screening levels in the groundwater sample collected at SWMU 1-7.

Soil boring SWMU 1-8 was completed on the east side of the Aeration Basin near the New API Separator. Bedrock was encountered at depth of 19 feet bgl and there was one relatively thick saturated interval of clayey sand found on top of the bedrock from a depth of approximately 13 feet to 19 feet bgl. 1-Methlynaphthalene, MTBE and naphthalene were found in the

groundwater sample collected from this boring at concentrations above their screening levels; however, there are additional monitoring wells in this area (e.g., NAPIS-1 located east of the new API Separator) that can be used to provide delineation to the east.

While there are detections of seven organic constituents and DRO in groundwater samples collected immediately surrounding the Aeration Basin, the concentrations are not significantly above the screening levels (i.e., generally less than one order of magnitude above the screening level). The saturated intervals in most locations consist of clayey sand, which was found to not be very productive during sample collection activities. The clayey sand intervals do not appear to be laterally continuous at most locations based the inability to correlate zones between most of the soil borings completed around the perimeter of the Aeration Basin. It also appears that the source of recharge to the saturated intervals found in the borings around the Aeration Basin is the wastewater, which has been maintained in the Aeration Basin. As the Aeration Basin is removed from service and the liquids are removed, it is probable that the saturation observed in borings SWMU 1-2, SWMU 1-3, SWMU 1-4, SWMU 1-5, SWMU 1-6, SWMU 1-7, SWMU 1-8, SWMU 1-24, and SWMU 1-37 will dissipate.

7.1.2 Old API Separator

Soils

Twelve organic constituents [1,1,2-Trichloroethane, 1,2,4-trimethylbenzene, 1,2-dibromo-3-chloropropane, 1,2-dibromoethane (EDB), 1,2-dichloropropane, 1-methylnaphthalene, 2-methylnaphthalene, benzene, ethylbenzene, naphthalene, xylenes, and bis(2-chloroethyl)ether] and DRO were detected in soils at concentrations above their screening levels. The highest concentrations were found in soil samples collected directly beneath the former location of the OAPIS at borings SWMU 14-12, SWMU 14-13, and SWMU 14-14, and at borings immediately adjacent to the OAPIS (e.g., SWMU 14-15, SWMU 14-16, and SWMU 14 -17). In addition, there is an area of elevated concentrations at depths of 8 to 12 feet bgl located near the west end of the former OAPIS, near borings SWMU 14-6 and SWMU 14-7, and extending north towards the location of the former benzene strippers.

Concentrations of these organic constituents decrease away from the OAPIS and the lateral extent of the impacts to soil were delineated to the south in soil borings SWMU 14-21 and SWMU 14-22. All constituents except benzene were found below their respective screening levels to the east of the OAPIS in boring SWMU 1-23. Benzene was detected at 1.1 mg/kg vs.

a screening level of 0.796 mg/kg in silty clay at a depth of 12 – 14 feet in SWMU 14-23. All constituents were found at concentrations below their screening levels in the western most soil boring (SWMU 14-1), which was drilled to a depth of 50 feet in an attempt to hit bedrock or saturation. The extent of impacts to soil was not defined to the north toward the Aeration Basin, as demonstrated by impacts found in soil boring SWMU 14-3, which is located approximately half way between the former OAPIS and the Aeration Basin. It is possible that the impacts to soil may extend continuously between the OAPIS and the Aeration Basin, which are separated by only a short distance of approximately 60 feet. The vertical impacts to soil were found to extend to the uppermost groundwater-bearing horizons in borings SWMU 14-2 and SWMU 14-3.

Groundwater

Groundwater samples were collected from temporary well completions in two soil borings (SWMU 14-2 and SWMU 14-3) and one permanent monitoring well (OAPIS-1), which was installed in boring SWMU 14-2. Similarly as observed above for the temporary well completions around the Aeration Basin, many metals were detected above screening levels in the groundwater samples collected at the temporary well. The number of metals detected at concentrations above their screening levels in the groundwater sample collected from the permanent well completion (OAPIS-1) was significantly less than the number detected in the groundwater sample collected from the initial temporary well completion in this same soil boring (SWMU 14-2). It is possible that these results are affected by high turbidity levels in the water samples collected from the temporary well completions.

Seven organic constituents (benzene, 1-methlynaphthalene, 2-methylnaphthalene, 1,2,4-trimethlybenzene, Methylene chloride, MTBE, and naphthalene) and DRO were detected at concentrations above their screening levels in groundwater samples collected from both locations [SMWU 14-2 (OAPIS-1) and SMWU 14-3). Soil boring SWMU 14-2 was drilled to a depth of 26 feet, but did not encounter bedrock, nor was there any distinct saturated interval logged in this boring. Soil boring SWMU 14-3 was also drilled to a depth of 26 feet and did not encounter bedrock. An indication of potential saturation was observed near the top of a clay horizon in SWMU 14-3 at 14 feet bgl. Groundwater production was very slow from both of these locations, indicating the lack of a true aquifer.

The lateral extent of potential impacts to groundwater was defined by a series of dry soil borings drilled to the west, south and east of the OAPIS. SWMU 14-1, the western most soil boring

near the OAPIS was drilled to a depth of 50 feet and never did encounter bedrock. There was no indication of saturation in SWMU 14-1 and the boring failed to produce any water. Two borings (SWMU 14-21 and SWMU 14-22) were drilled south of the OAPIS and no elevated PID readings or indication of saturation was logged in either boring. Soil boring SWMU 14-23 was drilled east of the OAPIS and did encounter a sandy clay zone at 16 feet bgl that was wet, but a temporary well completion in the boring failed to produce any water.

7.2 Recommendations

An additional soil boring to the north of the Aeration Basin near soil boring SWMU 1-6 could be completed to provide full delineation of both soil and groundwater impacts to the north of the Aeration Basin. Also an additional boring to the southwest of location SWMU 1-37 could provide additional control in this area for potential groundwater impacts. The area between the OAPIS and the Aeration Basin is relatively small and does not warrant additional investigation to determine if there is possible separation of impacts sourced from the two different SWMUs.

An additional soil boring could be installed east of the OAPIS near SWMU 1-23 to provide full delineation of soil impacts observed in this area. Additional soil data to the southwest of SWMU 14-6 could be used to better define soil impacts observed in this area of the site.

Section 8
References

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Western Refining, 2009, *Facility Wide Groundwater Monitoring Work Plan*, Western Refining Company Southwest, Inc., p. 78.

TABLE 1

Western Refining - Gallup Refinery - Historical Groundwater Analyses

Bold and highlighted values represent values above the applicable standards.		BTEX Parameters					Metals Parameters									
		Benzene (mg/L)	Toluene (mg/L)	Ethyl Benzene (mg/L)	Total Xylenes (mg/L)	MTBE (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Cadmium (mg/L)	Calcium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Copper (mg/L)	Iron (mg/L)	Lead (mg/L)	Magnesium (mg/L)
WQCC 20NMAC 6.2.3103 (Oct 2006)		**0.01**	**0.75**	**0.75**	**0.62**	**NE**	**0.1**	**1.0**	**0.01**	**NE**		**0.05**	**1.0**	**1.0**	**0.05**	**NE**
40 CFR 141.62 MCL (May 2009)		**0.005**	**1**	**0.7**	**10**	**NE**	**0.01**	**2.0**	**0.005**	**NE**		**0.1**	**1.3**	**NE**	**0.015**	**NE**
EPA RSL for Tap Water (Nov 2012)		**0.00041**	**0.86**	**0.0013**	**0.19**	**0.012**	**0.000045**	**2.9**		**NE**		**NE**	**0.62**	**11**	**NE**	**NE**
Well ID	**DATE SAMPLED**															
GWM-1																
	10/26/2006						**0.077**	0.53	<0.002	380		<0.006	NL	NL	NL	93
	10/27/2006	**0.012**	<0.001	>0.001	<0.003	**0.16**										
	5/24/2007	**0.016**	<0.001	<0.001	<0.003	**0.23**	**0.081**	0.44	<0.002	360		<0.006	NL	NL	<0.005	87
	7/10/2008	**0.011**	0.0021	**0.0039**	0.019	**0.12**	**0.07**	0.45	<0.002	350		<0.006	0.014	**14**	0.01	81
	7/27/2009	**0.0089**	0.002	**0.0074**	0.034	**0.085**	**0.114**	0.53	<0.002	310		<0.006	<0.006	**14**	0.0072	78
	3/3/2010*	**0.012**	0.005	**0.011**	0.05	**0.078**	**0.098**	0.42	<0.002	280		<0.006	0.0072	**15**	0.0078	57
	7/20/2010	**0.008**	0.002	**0.0068**	0.03	**0.077**	**0.16**	**1.2**	<0.002	310		<0.006	0.019	**20**	0.011	70
	9/16/2010	**0.0075**	0.0049	**0.0067**	0.03	**0.053**	**0.12**	0.87	<0.002	310		<0.006	0.0098	**15**	0.012	76
	11/2/2010	**0.0069**	0.0023	**0.0035**	0.022	**0.062**	**0.14**	**1.4**	<0.002	310		<0.006	<0.006	**7.9**	0.0095	75
	2/16/2011	**0.0095**	0.0034	**0.0054**	0.023	**0.057**	**0.16**	0.94	<0.002	310		0.0089	0.0089	17	0.0098	71
	6/15/2011	**0.0074**	0.0027	**0.0053**	0.026	**0.047**	**0.14**	**1.5**	<0.002	270		<0.006	<0.006	17	0.01	65
	9/26/2011	**0.0096**	0.0052	**0.0059**	0.03	**0.051**	0.12	1.5		290		<0.006	<0.006	17	<0.005	67
	12/14/2011	**0.0085**	0.0019	**0.0042**	0.014	**0.054**										
	12/17/2011						**0.097**	0.67		<10		<0.006	0.029	**15**	**0.023**	2.5
	3/20/2012	**0.0057**	<0.001	**0.0019**	0.007	**0.054**	**0.073**	**1.1**			<0.002	<0.006	<0.006	**8.9**	**0.0058**	2.5
GWM-2																
	9/6/2010									430						76
	9/16/2010	<0.001	<0.001	<0.001	<0.003	0.011										
	10/4/2010	<0.001	<0.001	<0.001	<0.003	0.011				420						77
	2/16/2011	<0.001	<0.001	<0.001	<0.0015	0.0083				460						74
	6/15/2011	<0.001	<0.001	<0.001	<0.0015	0.003				570						120
	9/26/2011	<0.001	<0.001	<0.001	<0.0015	0.0026				620						110
	12/14/2011	<0.001	<0.001	<0.001	<0.001	0.0027				620						120
	3/20/2012	<0.005	<0.005	<0.005	<0.001	<0.012										
GWM-3																
	9/16/2010	<0.001	<0.001	<0.001	<0.003	0.009				540						120
	10/4/2010	<0.001	<0.001	<0.001	<0.003	0.0092				450						89
	2/16/2011	<0.001	<0.001	<0.001	<0.0015	0.0081				450						81
	6/15/2011	<0.001	<0.001	<0.001	<0.0015	0.002				470						83
	9/26/2011	<0.001	<0.001	<0.001	<0.002	<0.0025				500						91
	12/14/2011	<0.001	<0.01	<0.001	<0.002	<0.0025				440						79
	3/20/2012	<0.005	<0.005	<0.005	<0.001	<0.012										

TABLE 1

Western Refining - Gallup Refinery - Historical Groundwater Analyses

Bold and highlighted values represent values above the applicable standards.		Metals Parameters (cont.)									8206b Parameters						
		Manganese (mg/L)	Selenium (mg/L)	Potassium (mg/L)	Silver (mg/L)	Sodium (mg/L)	Silver (mg/L)	Mercury (mg/L)	Uranium (mg/L)	Zinc (mg/L)	1,2,4-Trimethyl benzene (mg/L)	1,3,5-Trimethyl benzene (mg/L)	Naphthalene (mg/L)	1-Methyl naphthalene (mg/L)	2-Methyl naphthalene (mg/L)	Acetone (mg/L)	Isopropyl benzene (mg/L)
WQCC 20NMAC 6.2.3103 (Oct 2006)			**0.05**	**NE**	**0.05**	**NE**		**0.002**	**0.03**	**10**	**NE**	**NE**	**0.03**	**NE**	**NE**	**NE**	**NE**
40 CFR 141.62 MCL (May 2009)			**0.05**	**NE**	**NE**	**NE**		**0.002**	**0.03**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (Nov 2012)			**0.078**	**NE**	**NE**			**0.00063**	**0.047**	**4.7**	**0.015**	**0.087**	**0.00014**	**0.00097**	**0.027**	**12**	**NE**
Well ID	**DATE SAMPLED**																
GWM-1																	
	10/26/2006		NL	4.2		1400		<0.0002	NL	NL							
	10/27/2006																
	5/24/2007		<0.05	3.7	<0.005	1300		<0.0002	NL	NL	<0.01	<0.01	<0.02	<0.04	<0.04	<0.1	<0.01
	7/10/2008		<0.05	3.3	<0.005	1400		<0.0002	NL	<0.05	0.0046	<0.002	<0.002	<0.008	<0.008	<0.02	<0.002
	7/27/2009		NL	3.0	<0.005	1300		<0.0002	0.0159	0.025	0.0064	0.0011	**0.0024**	**0.0097**	<0.004	<0.01	0.0026
	3/3/2010*		<0.05	2.9	<0.005	1200		<0.0002	0.0224	0.03	0.0081	<0.005	<0.01	<0.02	<0.02	<0.05	<0.005
	7/20/2010		<0.05	3.1	<0.005	1200		<0.0002	0.011	0.031	0.013	<0.001	**0.0035**	**0.0072**	<0.004	0.012	0.0016
	9/16/2010		<0.05	2.8	<0.005	1200		<0.0002	0.015	0.023	0.012	0.0019	NA	NA	NA	NA	NA
	11/2/2010		<0.05	2.9	<0.005	1100		<0.0002	0.009	0.025	0.0075	<0.001	<0.02	**0.011**	<0.004	<0.01	<0.001
	2/16/2011		0.02	4.3	<0.005	1200		<0.002	0.015	0.038	0.008	<0.001	<0.002	**0.01**	<0.004	<0.01	0.0014
	6/15/2011		0.015	<5.0	<0.005	1000		<0.0002	0.0084	0.026	**0.018**	0.0031	**0.0055**	**0.024**	0.0062	<0.01	0.0018
	9/26/2011		0.0082	3.2		1100		<0.0002	0.007	0.025	**0.019**	0.0029	**0.0044**	**0.028**	<0.004	<0.01	0.0019
	12/14/2011										0.004	<0.001	<0.002	**0.0052**	<0.004	<0.01	0.0013
	12/17/2011		0.0047	4.0		1100		<0.002	0.02	0.041							
	3/20/2012	0.0058	0.01				<0.005	<0.001	0.0069	0.016	0.0018	<0.001	<0.002	<0.004	<0.004	0.011	<0.001
GWM-2																	
	9/6/2010			3.2		950											
	9/16/2010																
	10/4/2010			3.0		910											
	2/16/2011			3.7		1000											
	6/15/2011			4.2		1600											
	9/26/2011			4.2		1600											
	12/14/2011			4.1		1500											
	3/20/2012																
GWM-3																	
	9/16/2010			8.2		1400											
	10/4/2010			7.6		1300											
	2/16/2011			7.9		1200											
	6/15/2011			5.7		1200											
	9/26/2011			5.1		1300											
	12/14/2011			4.6		1300											
	3/20/2012																

TABLE 1
Western Refining - Gallup Refinery - Historical Groundwater Analyses

Bold and highlighted values represent values above the applicable standards.		8206b Parameters (cont.)			General Chemical Parameters										
		n-Butyl benzene (mg/L)	n-Propyl benzene (mg/L)	2,4-Dimethyl phenol (mg/L)	Fluoride (mg/L)	Chloride (mg/L)	Bromide (mg/L)	Nitrite (mg/L)	Nitrate (mg/L)	Phosphorus (mg/L)	Sulfate (mg/L)	pH	Specific Conductance (µmhos/cm)	DRO (mg/L)	GRO (mg/L)
WQCC 20NMAC 6.2.3103 (Oct 2006)		**NE**	**NE**	**NE**	**1.6**	**250.0**	**NE**	**NE**	**10**	**NE**	**600.0**	**6 to 9**	**NE**	**0.2[1]**	**NE**
40 CFR 141.62 MCL (May 2009)		**NE**	**NE**	**NE**	**4.0**	**NE**	**NE**	**1**	**10**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
EPA RSL for Tap Water (Nov 2012)		**0.78**	**NE**	**0.27**	**NE**	**NE**	**NE**	**1.6**	**25**	**0.00031**	**NE**	**NE**	**NE**	**NE**	**NE**
Well ID	**DATE SAMPLED**														
GWM-1															
	10/26/2006				**2.0**	**3700**	NL	<2.0	<2.0	<2.5	120	6.87	NR	NR	NR
	10/27/2006														
	5/24/2007	<0.01	<0.01	<0.01	**1.9**	**1800**	NL	<2.0	<2.0	<0.5	120	NL	NL	NL	NL
	7/10/2008	<0.002	<0.002	0.028	**1.7**	**1800**	NL	<2.0	<2.0	<0.5	110	6.92	7400	NR	NR
	7/27/2009	<0.001	0.0002	0.064	**2.1**	**1600**	NL	<4.0	<4.0	<0.5	73	7.03	6200	NR	NR
	3/3/2010*	<0.005	<0.005	NL	**2.1**	**1600**	2.7	<4.0	<4.0	<0.5	88	NR	NR	**3.9**	0.88
	7/20/2010	0.0019	0.0015	0.052	**2.9**	**1500**	2.6	<4.0	<4.0	<2.5	57	7.18	6400	NR	NR
	9/16/2010	NA	NA	NA	**2.9**	**1400**	NL	<4.0	<4.0	<5.0	48	NR	NR	**7.7**	0.71
	11/2/2010	0.0016	0.0012	NL	**3.5**	**1300**	NL	<1.0	<1.0	<5.0	26	NR	NR	**6.0**	0.68
	2/16/2011	<0.001	0.0018	NL	**2.8**	**1400**	2.5	**2.1**	2.1	<0.5	47	NR	NR	**5.4**	0.7
	6/15/2011	<0.01	0.0028	NL	**2.6**	**1200**	2.6	<2.0	<2.0	<2.5	64	NR	NR	**4.0**	0.53
	9/26/2011	<0.01	0.0027	NL	**3.5**	**1300**	1.5	<4.0	<4.0	<2.5	47	NR	NR	**3.9**	0.65
	12/14/2011	<0.001	0.0022	NL	1.2	**1300**	2.5	<1.0	<1.0	<10	54	NR	NR	**2.9**	0.81
	12/17/2011														
	3/20/2012	<0.001	0.0011	NL	3.6	**1200**	3.2	<0.5	<0.5	<2.5	130	NR	NR	**3.5**	1
GWM-2															
	9/6/2010														
	9/16/2010				0.46	**1400**	NL	<4.0	<4.0	<5.0	**700**	NR	NR	<1.0	<0.05
	10/4/2010				0.52	**1800**	3.4	<4.0	<4.0	<0.5	**740**	NR	NR	<1.0	<0.05
	2/16/2011				0.43	**910**	3.3	**2.6**	2.6	<0.5	**660**	NR	NR	<1.0	<0.05
	6/15/2011				**3.1**	**2200**	4.9	**66**	**66**	<2.5	**1100**	NR	NR	<1.0	<0.05
	9/26/2011				**16**	**2200**	4.9	**52**	**52**	<2.5	**1200**	NR	NR	<1.0	<0.05
	12/14/2011				0.48	**2100**	4	**25**	**25**	<10	**1000**	NR	NR	<1.0	<0.05
	3/20/2012				**3.6**	**1500**	4.4	<0.5	<0.5	<2.5	**1300**	NR	NR	2.4	<0.25
GWM-3															
	9/16/2010				**4.7**	**2000**	NL	**66**	**66**	<5.0	**1500**	NR	NR	**3.7**	0.066
	10/4/2010				**5.9**	**1800**	2.3	**61**	**61**	<0.5	**1500**	NR	NR	**1.3**	0.12
	2/16/2011				**4.2**	**1100**	2.1	**61**	**61**	<0.5	**1900**	NR	NR	<1.0	<0.05
	6/15/2011				**5.5**	**610**	2.3	<2.0	<2.0	<2.5	**1900**	NR	NR	**1.1**	0.12
	9/26/2011				**5.3**	**1000**	2.5	**130**	**130**	<2.5	**2500**	NR	NR	**2.7**	<0.05
	12/14/2011				**5.0**	**1400**	2.5	**51**	**51**	<10	**1800**	NR	NR	**1.3**	<0.05
	3/20/2012				**4.9**	**1300**	2.8	<0.5	<0.5	<2.5	**1600**	NR	NR	**2.7**	<0.25

9/26/2011 Quarterly sampling combined with Annual sampling event

DEFINITIONS:

NE = Not Established
NA = Not Analyzed
NL = Not Listed on laboratory analysis

STANDARDS:

WQCC 20 NMAC 6.23103 - Standards for Ground Water of 10,000 mg/l TDS Concentration or Less.
a) Human Health Standards; b) Other Standards for Domestic Water
40 CFR 141.62 Detection Limites for Inorganic Contaminatnts
[1] NMED Table 6-2. TPH Screening Guidelines for Potable Ground Water (GW-1) (June 2012)

TABLE 2
Historical Groundwater Level Measurements
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Well ID	Measure-ment date	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Total Well Depth (ft)	Depth to Water	Groundwater Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
GWM-1	2/18/2008	6,910.22	6,912.61	26.20	19.91	6,892.70	17.5 - 23.5
	5/21/2008	6,910.22	6,912.61		19.47	6,893.14	
	9/10/2008	6,910.22	6,912.61		20.24	6,892.37	
	11/3/2008	6,910.22	6,912.61		20.55	6,892.06	
	2/11/2009	6,910.22	6,912.61		19.81	6,892.80	
	5/4/2009	6,910.22	6,912.61		19.56	6,893.05	
	8/10/2009	6,910.22	6,912.61		20.32	6,892.29	
	10/27/2009	6,910.22	6,912.61		20.57	6,892.04	
	3/3/2010	6,910.22	6,912.61		19.81	6,892.80	
	6/3/2010	6,910.22	6,912.61		18.14	6,894.47	
	9/16/2010	6,910.22	6,912.61		17.90	6,894.71	
	11/2/2010	6,910.22	6,912.61		18.41	6,894.20	
	2/16/2011	6,910.22	6,912.61		15.99	6,896.62	
	6/15/2011	6,910.22	6,912.61		15.82	6,896.79	
	9/26/2011	6,910.22	6,912.61		16.42	6,896.19	
	12/14/2011	6,910.22	6,912.61		16.08	6,896.53	
	6/12/2012	6,910.22	6,912.61		15.56	6,897.05	
	8/21/2012	6,910.22	6,912.61		16.29	6,896.32	
	11/28/2012	6,910.22	6,912.61		14.50	6,898.11	
GWM-2	2/18/2008	6,910.32	6,913.09	18.81	18.45	6,894.64	3.2 - 16.2
	3/17/2008	6,910.32	6,913.09		DRY	DRY	
	5/21/2008	6,910.32	6,913.09		DRY	DRY	
	9/10/2008	6,910.32	6,913.09		DRY	DRY	
	11/3/2008	6,910.32	6,913.09		DRY	DRY	
	2/11/2009	6,910.32	6,913.09		DRY	DRY	
	5/4/2009	6,910.32	6,913.09		DRY	DRY	
	8/10/2009	6,910.32	6,913.09		DRY	DRY	
	10/27/2009	6,910.32	6,913.09		DRY	DRY	
	3/3/2010	6,910.32	6,913.09		DRY	DRY	
	6/3/2010	6,910.32	6,913.09		17.57	6,895.52	
	9/16/2010	6,910.32	6,913.09		17.30	6,895.79	
	11/2/2010	6,910.32	6,913.09		18.87	6,894.22	
	2/16/2011	6,910.32	6,913.09		15.08	6,898.01	
	6/15/2011	6,910.32	6,913.09		15.02	6,898.07	
	9/26/2011	6,910.32	6,913.09		15.89	6,897.20	
	12/14/2011	6,910.32	6,913.09		15.40	6,897.69	
	6/12/2012	6,910.32	6,913.09		14.96	6,898.13	
	8/21/2012	6,910.32	6,913.09		15.79	6,897.30	
	11/28/2012	6,910.32	6,913.09		13.83	6,899.26	

TABLE 2
Historical Groundwater Level Measurements
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Well ID	Measure-ment date	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Total Well Depth (ft)	Depth to Water	Groundwater Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
GWM-3	2/18/2008	6,907.35	6,910.25	17.80	DRY	DRY	3 - 15
	5/21/2008	6,907.35	6,910.25		DRY	DRY	
	9/10/2008	6,907.35	6,910.25		DRY	DRY	
	11/3/2008	6,907.35	6,910.25		DRY	DRY	
	2/11/2009	6,907.35	6,910.25		DRY	DRY	
	5/4/2009	6,907.35	6,910.25		DRY	DRY	
	8/10/2009	6,907.35	6,910.25		DRY	DRY	
	10/27/2009	6,907.35	6,910.25		DRY	DRY	
	3/3/2010	6,907.35	6,910.25		DRY	DRY	
	6/3/2010	6,907.35	6,910.25		17.17	6,893.08	
	9/16/2010	6,907.35	6,910.25		16.92	6,893.33	
	11/2/2010	6,907.35	6,910.25		17.83	6,892.42	
	2/16/2011	6,907.35	6,910.25		12.84	6,897.41	
	6/15/2011	6,907.35	6,910.25		14.20	6,896.05	
	9/26/2011	6,907.35	6,910.25		15.64	6,894.61	
	12/14/2011	6,907.35	6,910.25		14.35	6,895.90	
	6/12/2012	6,907.35	6,910.25		14.70	6,895.55	
	8/21/2012	6,907.35	6,910.25		15.45	6,894.80	
	11/28/2012	6,907.35	6,910.25		13.60	6,896.65	
NAPIS 1 (KA-1R)	4/11/2008	6,913.62	6,913.86	13.53	8.58	6,905.28	3.7 -13.7
	7/11/2008	6,913.62	6,913.86		8.98	6,904.88	
	11/4/2008	6,913.62	6,913.86		8.83	6,905.03	
	3/23/2009	6,913.62	6,913.86		8.92	6,904.94	
	5/28/2009	6,913.62	6,913.86		8.67	6,905.19	
	8/11/2009	6,913.62	6,913.86		9.06	6,904.80	
	11/23/2009	6,913.62	6,913.86		10.28	6,903.58	
	3/8/2010	6,913.62	6,913.86		8.69	6,905.17	
	6/8/2010	6,913.62	6,913.86		8.37	6,905.49	
	9/15/2010	6,913.62	6,913.86		7.77	6,906.09	
	11/2/2010	6,913.62	6,913.86		7.62	6,906.24	
	3/2/2011	6,913.62	6,913.86		7.47	6,906.39	
	6/15/2011	6,913.62	6,913.86		7.96	6,905.90	
	9/27/2011	6,913.62	6,913.86		7.30	6,906.56	
	12/14/2011	6,913.62	6,913.86		7.45	6,906.41	
	6/12/2012	6,913.62	6,913.86		7.39	6,906.47	
	8/21/2012	6,913.62	6,913.86		7.07	6,906.79	
	11/28/2012	6,913.62	6,913.86		8.04	6,905.82	

TABLE 2
Historical Groundwater Level Measurements
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Well ID	Measure-ment date	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Total Well Depth (ft)	Depth to Water	Groundwater Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
NAPIS 2 (KA-2R)	4/11/2008	6,913.40	6,912.65	13.61	8.83	6,903.82	4.2 - 14.2
	7/11/2008	6,913.40	6,912.65		8.96	6,903.69	
	11/4/2008	6,913.40	6,912.65		9.23	6,903.42	
	3/23/2009	6,913.40	6,912.65		9.35	6,903.30	
	5/28/2009	6,913.40	6,912.65		9.22	6,903.43	
	8/11/2009	6,913.40	6,912.65		9.39	6,903.26	
	11/23/2009	6,913.40	6,912.65		9.72	6,902.93	
	3/8/2010	6,913.40	6,912.65		9.19	6,903.46	
	6/8/2010	6,913.40	6,912.65		8.93	6,903.72	
	9/15/2010	6,913.40	6,912.65		8.57	6,904.08	
	11/2/2010	6,913.40	6,912.65		8.55	6,904.10	
	3/2/2011	6,913.40	6,912.65		9.14	6,903.51	
	6/15/2011	6,913.40	6,912.65		8.67	6,903.98	
	9/27/2011	6,913.40	6,912.65		8.18	6,904.47	
	12/14/2011	6,913.40	6,912.65		8.20	6,904.45	
	6/12/2012	6,913.40	6,912.65		9.40	6,903.25	
	8/21/2012	6,913.40	6,912.65		7.95	6,904.70	
	11/28/2012	6,913.40	6,912.65		8.09	6,904.56	
NAPIS 3 (KA-3R)	4/11/2008	6,913.38	6,912.76	30.42	14.98	6,897.78	25.4 - 30-4
	7/11/2008	6,913.38	6,912.76		9.72	6,903.04	
	11/4/2008	6,913.38	6,912.76		8.71	6,904.05	
	3/23/2009	6,913.38	6,912.76		9.93	6,902.83	
	6/15/2009	6,913.38	6,912.76		8.59	6,904.17	
	8/31/2009	6,913.38	6,912.76		8.39	6,904.37	
	11/23/2009	6,913.38	6,912.76		21.62	6,891.14	
	3/8/2010	6,913.38	6,912.76		9.24	6,903.52	
	6/10/2010	6,913.38	6,912.76		8.87	6,903.89	
	9/15/2010	6,913.38	6,912.76		7.31	6,905.45	
	11/2/2010	6,913.38	6,912.76		8.65	6,904.11	
	3/2/2011	6,913.38	6,912.76		8.11	6,904.65	
	6/15/2011	6,913.38	6,912.76		7.89	6,904.87	
	9/27/2011	6,913.38	6,912.76		7.74	6,905.02	
	12/14/2011	6,913.38	6,912.76		8.30	6,904.46	
	6/12/2012	6,913.38	6,912.76		7.41	6,905.35	
	8/21/2012	6,913.38	6,912.76		8.56	6,904.20	
	11/28/2012	6,913.38	6,912.76		8.30	6,904.46	

TABLE 2
Historical Groundwater Level Measurements
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Well ID	Measure-ment date	Ground Level Elevations (ft)	Well Casing Rim Elevations (ft)	Total Well Depth (ft)	Depth to Water	Groundwater Elevation (ft)	Screened Interval Depth Top to Bottom (ft)
KA-3	11/4/2008	6,913.29	6,912.52	23.20	9.01	6,903.51	15 - 25
	3/23/2009	6,913.29	6,912.52		9.23	6,903.29	
	5/28/2009	6,913.29	6,912.52		9.12	6,903.40	
	8/31/2009	6,913.29	6,912.52		9.36	6,903.16	
	11/23/2009	6,913.29	6,912.52		9.60	6,902.92	
	3/8/2010	6,913.29	6,912.52		8.74	6,903.78	
	6/10/2010	6,913.29	6,912.52		8.39	6,904.13	
	9/15/2010	6,913.29	6,912.52		8.69	6,903.83	
	11/2/2010	6,913.29	6,912.52		8.52	6,904.00	
	3/2/2011	6,913.29	6,912.52		8.51	6,904.01	
	6/15/2011	6,913.29	6,912.52		8.44	6,904.08	
	9/27/2011	6,913.29	6,912.52		8.11	6,904.41	
	12/14/2011	6,913.29	6,912.52		8.08	6,904.44	
	6/12/2012	6,913.29	6,912.52		7.97	6,904.55	
	8/21/2012	6,913.29	6,912.52		7.98	6,904.54	
	11/28/2012	6,913.29	6,912.52		7.97	6,904.55	

TABLE 3
SWMU 1 Soil Boring Samples - Vapor Screening Results
Western Refining Company Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Sample Interval Depth	SWMU 1-1	SWMU 1-2	SWMU 1-3	SWMU 1-4	SWMU 1-5	SWMU 1-6	SWMU 1-7	SWMU 1-8	SWMU 1-9	SWMU 1-10	SWMU 1-11	SWMU 1-12	SWMU 1-13	SWMU 1-14	SWMU 1-15	SWMU 1-16	SWMU 1-17	SWMU 1-18	SWMU 1-19	SWMU 1-20
0 – 2'	12.9	3	17.3	2.9	6.8	10.5	7.6	26.5	3.2/7.0	10.1/6.1	38.9/3.7	63/4.4	3.1	5.7/4.7	5.7/9.3	7.7/5.7	9.5/6.7	8.2/5.2	4.1	21.7
2 – 4'	245	3.7	21.3	3.8	8.1	37.5	4.8	9.9					35.7							4.6
4 – 6'	NR	6.1	10.3	3.0	8.4	15.9	5.1	13.5					15.6							2.5
6 – 8'	333	2.8	18.9	3.1	2.5	5.8/4.9	4.0	8.8												2.8
8 –10'	144	NR	14.2	3.1	3.8	7.8	1.7	10.0												3.9
10 – 12'	399	4.7/4.3	16.3/12.3	7.8	9.8	9.6/0.8	0.5	15.8												1.5
12 – 14'	148/199	3.2	7.4	13.2	8.2		0.4	161												
14 – 16'		3.7	8.9	NR	11.0		5.9	9.9												
16 – 18'		7.2	11.3/10.7	11.8/16.4	16.1		2.8	8.3												
18 – 20'		2.9/2.3	5.4/6.1	8.5	12.8			14.0/10.5												
20 – 22'				8.5	5.7															
22 – 24'				5.6/5.2	5.5															
24 – 26'					10.9															
26 – 28'					3.0/4.1															

Sample Interval Depth	SWMU 1-21	SWMU 1-22	SWMU 1-23	SWMU 1-24	SWMU 1-25	SWMU 1-26	SWMU 1-27	SWMU 1-28	SWMU 1-29	SWMU 1-30	SWMU 1-31	SWMU 1-32	SWMU 1-33	SWMU 1-34	SWMU 1-35	SWMU 1-36	SWMU 1-37	SWMU 1-38	SWMU 1-39
0 – 2'	1.4	4.9/6.8	3.7	4.6	4.1/4.7	6.5	14.5	4.0	3.6	4.6	3.9	0.7	3.1	3.2	0.8	1.9	4.9	10.3	4.4
2 – 4'				6.4			18.2	4.8		6.6					4.7		13.6	8.5	
4 – 6'				14.4						6.7					1.7		12.8	8.2	
6 – 8'				22.9													16.6	11.7	
8 –10'				13.3													8.8		
10 – 12'				15.7													14.6		
12 – 14'				11.7													14.6/11.4		
14 – 16'				17.8													12.3		
16 – 18'				28.0													NR		
18 – 20'				27.0															
20 – 22'				27.1															
22 – 24'				17.7															
24 – 26'				19.5															
26 – 28'				22.8															
28 – 30'				16.7															
30 – 32'				13.2															
32 – 34'				10.9															

UNITS - PPM
NR = No Recover

TABLE 3
SWMU 14 Soil Boring Samples - Vapor Screening Results
Western Refining Company Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Sample Interval Depth	SWMU 14-1	OAPIS-1 (SWMU 14-2)	SWMU 14-3	SWMU 14-4	SWMU 14-5	SWMU 14-6	SWMU 14-7	SWMU 14-8	SWMU 14-9	SWMU 14-10	SWMU 14-11	SWMU 14-12
0 – 2'	5.0/12.6	2.9/280	14.3/6.2	5.9/6.2	5.7/7.4	0.7	141/197	8.2/3717	4.9/106	0.3/0.4	5.3/38.5	949/1094
2 – 4'	7.2	56.8	101	28.2		3.9	293		1712			
4 – 6'	13.9	69.4	122	23.1		306	365		1959			
6 – 8'	13.2	87.5	104	19.2		364	935		582			
8 –10'	21.0	330	343	581		345	649		10.9			
10 – 12'	105.9	294	155	711		367	NR		11.3			
12 – 14'	12.4	14.6	326	34.5		13.6	265		10.8			
14 – 16'	10.9	5.7	NM	8.7		10.5	108					
16 – 18'	10.9	10.7	NM	6.5		4.6	74					
18 – 20'	14.9	NM	NM	2.5			9.9					
20 – 22'	15.8	17.9	8.5				3.2					
22 – 24'	13.0	12.8	5.4				3.3					
24 – 26'	13.7	13.2	2.3									
26 – 28'	9.5											
28 – 30'	9.6											
30 – 32'	5.0											
32 – 34'	10.3											
34 – 36'	9.9											
36 – 38'	3.0											
38 – 40'	8.2											
40 – 42'	2.1											
42 – 44'	3.1											
44 – 46'	4.0											
46 – 48'	4.3											
48 – 50'	3.2											

Sample Interval Depth	SWMU 14-13	SWMU 14-14	SWMU 14-15	SWMU 14-16	SWMU 14-17	SWMU 14-18	SWMU 14-19	SWMU 14-20	SWMU 14-21	SWMU 14-22	SWMU 14-23	SWMU 14-24
0 – 2'	300/975	567/1028	2.8/5000	10.8/375.5	10.9/898	5.0/2537	4.4/5.1	2.0	10.5	2.9	11.0	3.0/4.0
2 – 4'									4.6	7.3	14.8	
4 – 6'									8.6	7.9	13.6	
6 – 8'									7.6	7.3	385.0	
8 –10'									4.5	4.9	112.0	
10 – 12'											315.0	
12 – 14'											398.0	
14 – 16'											52.0	
16 – 18'											120.0	
18 – 20'											NR	
20 – 22'											NR	

UNITS - PPM
NR - No Recovery
NM - No Measurement

TABLE 4
Residential Soil Screening Levels
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

					Cross Media Soil-to-Ground Water			Cross Media Soil-to-Ground Water			
	NMED		EPA		NMED	EPA		NMED	EPA		
Analyte	Residential Soil (mg/kg)	Endpoint	Residential Soil (mg/kg)	ResSoil key	DAF1 (mg/kg)	GW_Risk-based SSL (mgkg)	GW_MCL-based SSL (mg/kg)	DAF (461) (mg/kg)	GW_Risk-based SSL (461) (mg/kg)	GW_MCL-based SSL (461) (mg/kg)	Constituent Detected
Applicable depth interval	0-10'		0-2'		All depths			All depths			
Acenaphthene	3.44E+03	n	3.40E+03	n	1.69E+01	4.10E+00	-	7.79E+03	1.89E+03	-	N
Acenaphthylene	-	-	-	-	-	-	-	-	-	-	N
Acetone	6.66E+04	n	6.10E+04	n	3.86E+00	2.40E+00	-	1.78E+03	1.11E+03	-	Y
Aniline	-	-	8.50E+01	c**	-	3.90E-03	-	-	1.80E+00	-	N
Anthracene	1.72E+04	n	1.70E+04	n	2.71E+02	4.20E+01	-	1.25E+05	1.94E+04	-	N
Antimony	3.13E+01	n	3.10E+01	n	6.61E-01	2.70E-01	0.27	3.05E+02	1.24E+02	1.24E+02	N
Arsenic	3.90E+00	c	3.90E-01	c*	1.31E-02	1.30E-03	0.29	6.05E+00	5.99E-01	1.34E+02	N
Azobenzene	-	-	5.10E+00	c	-	8.00E-04	-	-	3.69E-01	-	N
Barium	1.56E+04	n	1.50E+04	n	3.01E+02	1.20E+02	82	1.39E+05	5.53E+04	3.78E+04	Y
Benz(a)anthracene	1.48E+00	c	1.50E-01	c	7.83E-02	1.00E-02	-	3.61E+01	4.61E+00	-	N
Benzene	1.54E+01	c	1.10E+00	c*	1.73E-03	2.00E-04	0.0026	7.96E-01	9.22E-02	1.20E+00	Y
Benzo(a)pyrene	1.48E-01	c	1.50E-02	c	2.60E-02	3.50E-03	0.24	1.20E+01	1.61E+00	1.11E+02	N
Benzo(b)fluoranthene	1.48E+00	c	1.50E-01	c	2.65E-01	3.50E-02	-	1.22E+02	1.61E+01	-	N
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	-	-	N
Benzo(k)fluoranthene	1.48E+01	c	1.50E+00	c	2.60E+00	3.50E-01	-	1.20E+03	1.61E+02	-	N
Benzoic acid	-	-	2.40E+05	nm	-	1.40E+01	-	-	6.45E+03	-	N
Benzyl alcohol	-	-	6.10E+03	n	-	3.70E-01	-	-	1.71E+02	-	N
Beryllium	1.56E+02	n	1.60E+02	n	5.77E+01	1.30E+01	3.2	2.66E+04	5.99E+03	1.48E+03	Y
Bis(2-chloroethoxy)methane	-	-	1.80E+02	n	-	1.10E-02	-	-	5.07E+00	-	N
Bis(2-chloroethyl)ether	2.68E+00	c	2.10E-01	c	2.63E-05	3.10E-06	-	1.21E-02	1.43E-03	-	N
Bis(2-chloroisopropyl)ether	9.15E+01	c	4.60E+00	c	2.33E-03	1.10E-04	-	1.07E+00	5.07E-02	-	N
Bis(2-ethylhexyl)phthalate	3.47E+02	cs	3.50E+01	c*	8.62E+00	1.70E-02	1.4	3.97E+03	7.84E+00	6.45E+02	Y
Bromobenzene	-	-	3.00E+02	n	-	3.60E-02	-	-	1.66E+01	-	N
Bromodichloromethane	5.41E+00	c	2.70E-01	c	2.71E-04	3.20E-05	0.022	1.25E-01	1.48E-02	1.01E+01	N
Bromoform	6.16E+02	c	6.20E+01	c*	6.04E-01	2.10E-03	0.021	2.78E+02	9.68E-01	9.68E+00	N
Bromomethane	1.65E+01	n	7.30E+00	n	1.92E-03	1.80E-03	-	8.86E-01	8.30E-01	-	N
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	-	-	N
2-Butanone (MEK)	3.71E+04	n	2.80E+04	n	1.27E+00	1.00E+00	-	5.87E+02	4.61E+02	-	Y
Butyl benzyl phthalate	-	-	2.60E+02	c*	-	2.00E-01	-	-	9.22E+01	-	N
Cadmium	7.03E+01	n	7.00E+01	n	1.37E+00	-	-	6.33E+02	-	-	N
Carbazole	-	-	-	-	-	-	-	-	-	-	N
Carbon disulfide	1.53E+03	ns	8.20E+02	ns	2.83E-01	2.10E-01	-	1.30E+02	9.68E+01	-	Y
Carbon tetrachloride	1.08E+01	c	6.10E-01	c	1.60E-03	1.50E-04	0.0019	7.39E-01	6.92E-02	8.76E-01	N
Chlorobenzene	3.76E+02	ns	2.90E+02	n	4.92E-02	4.90E-02	0.068	2.27E+01	2.26E+01	3.13E+01	N
Chloroethane	2.98E+04	ns	1.50E+04	ns	5.37E+00	5.90E+00	-	2.48E+03	2.72E+03	-	N
Chloroform	5.86E+00	c	2.90E-01	c	4.59E-04	5.30E-05	0.022	2.12E-01	2.44E-02	1.01E+01	N
Chloromethane	2.75E+02	n	1.20E+02	n	4.40E-02	4.90E-02	-	2.03E+01	2.26E+01	-	N
4-Chloro-3-methylphenol	-	-	6.10E+03	n	-	1.30E+00	-	-	5.99E+02	-	N
4-Chloroaniline	-	-	2.40E+00	c	-	1.30E-04	-	-	5.99E-02	-	N
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	-	-	N
4-Chlorotoluene	-	-	1.60E+03	ns	-	1.80E-01	-	-	8.30E+01	-	N
2-Chloronaphthalene	6.11E+01	n	6.30E+03	ns	8.69E-04	2.90E+00	-	4.01E-01	1.34E+03	-	N
2-Chlorophenol	3.91E+02	n	3.90E+02	n	1.16E-01	5.70E-02	-	5.33E+01	2.63E+01	-	N
2-Chlorotoluene	1.56E+03	ns	1.60E+03	ns	5.58E-01	1.70E-01	-	2.57E+02	7.84E+01	-	N
Chromium III	1.17E+05	nl	1.20E+05	nm	9.86E+07	2.80E+07	-	4.54E+10	1.29E+10	-	Y
Chromium VI	2.97E+00	c	2.90E-01	c	8.31E-03	5.90E-04	-	3.83E+00	2.72E-01	-	Y
Chrysene	1.48E+02	c	1.50E+01	c	7.99E+00	1.10E+00	-	3.68E+03	5.07E+02	-	N
cis-1,2-DCE	1.56E+02	n	1.60E+02	n	1.84E-02	8.20E-03	2.10E-02	8.47E+00	3.78E+00	9.68E+00	N
cis-1,3-Dichloropropene	3.37E+01	c	-	-	1.24E-03	-	-	5.71E-01	-	-	N
Cobalt	-	-	2.30E+01	n	-	2.10E-01	-	-	9.68E+01	-	Y
Cyanide	4.69E+01	n	4.70E+01	n	2.21E-01	9.40E-02	2	1.02E+02	4.33E+01	9.22E+02	Y
1,1-Dichloroethane	6.45E+01	c	3.30E+00	c	5.98E-03	6.80E-04	-	2.75E+00	3.13E-01	-	N
1,1-Dichloroethene	4.49E+02	n	2.40E+02	n	1.16E-01	9.30E-02	0.0025	5.36E+01	4.29E+01	1.15E+00	N
1,1-Dichloropropene	-	-	-	-	-	-	-	-	-	-	N
1,2-Dibromo-3-chloropropane	1.86E+00	c	5.40E-03	c	1.10E-06	1.40E-07	8.60E-05	5.07E-04	6.45E-05	3.96E-02	N
1,2-Dibromoethane (EDB)	5.88E-01	c	3.40E-02	c	1.54E-05	1.80E-06	1.40E-05	7.10E-03	8.30E-04	6.45E-03	N
1,2-Dichlorobenzene	2.31E+03	ns	1.90E+03	ns	2.80E-01	2.70E-01	0.58	1.29E+02	1.24E+02	2.67E+02	N
3,3'-Dichlorobenzidine	1.08E+01	c	1.10E+00	c	7.40E-03	7.10E-04	-	3.41E+00	3.27E-01	-	N
1,2-Dichloroethane (EDC)	7.89E+00	c	4.30E-01	c*	3.56E-04	4.20E-05	0.0014	1.64E-01	1.94E-02	6.45E-01	N
1,2-Dichloropropane	1.52E+01	c	9.40E-01	c*	1.07E-03	1.30E-04	0.0017	4.94E-01	5.99E-02	7.84E-01	N
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	N
1,3-Dichloropropane	-	-	1.60E+03	ns	-	9.90E-02	-	-	4.56E+01	-	N

TABLE 4
Residential Soil Screening Levels
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analyte	NMED		EPA		Cross Media Soil-to-Ground Water NMED	Cross Media Soil-to-Ground Water EPA		Cross Media Soil-to-Ground Water NMED	Cross Media Soil-to-Ground Water EPA		Constituent Detected
	Residential Soil (mg/kg)	Endpoint	Residential Soil (mg/kg)	ResSoil key	DAF1 (mg/kg)	GW_Risk-based SSL (mgkg)	GW_MCL-based SSL (mg/kg)	DAF (461) (mg/kg)	GW_Risk-based SSL (461) (mg/kg)	GW_MCL-based SSL (461) (mg/kg)	
Applicable depth interval	0-10'		0-2'		All depths			All depths			
1,4-Dichlorobenzene	3.17E+01	c	2.40E+00	c	3.19E-03	4.00E-04	0.072	1.47E+00	1.84E-01	3.32E+01	N
2,2-Dichloropropane	-	-	-	-	-	-	-	-	-	-	N
2,4-Dichlorophenol	1.83E+02	n	1.80E+02	n	9.98E-02	4.10E-02	-	4.60E+01	1.89E+01	-	N
2,4-Dimethylphenol	1.22E+03	n	1.20E+03	n	6.65E-01	3.20E-01	-	3.07E+02	1.48E+02	-	Y
4,6-Dinitro-2-methylphenol	-	-	4.90E+00	n	-	2.00E-03	-	-	9.22E-01	-	N
2,4-Dinitrophenol	1.22E+02	n	1.20E+02	n	6.31E-02	3.40E-02	-	2.91E+01	1.57E+01	-	N
2,4-Dinitrotoluene	1.57E+01	c	1.60E+00	c*	2.25E-03	2.80E-04	-	1.04E+00	1.29E-01	-	N
2,6-Dinitrotoluene	6.11E+01	n	6.10E+01	n	3.85E-02	2.00E-02	-	1.77E+01	9.22E+00	-	N
Dibenz(a,h)anthracene	1.48E-01	c	1.50E-02	c	8.46E-02	1.10E-02	-	3.90E+01	5.07E+00	-	N
Dibenzofuran	-	-	7.80E+01	n	-	1.10E-01	-	-	5.07E+01	-	N
Dibromochloromethane	1.21E+01	c	6.80E-01	c	3.31E-04	3.90E-05	2.10E-02	1.52E-01	1.80E-02	9.68E+00	N
Dibromomethane	5.16E+01	n	2.50E+01	n	1.71E-03	1.90E-03	-	7.89E-01	8.76E-01	-	N
Dichlorodifluoromethane	1.68E+02	n	9.40E+01	n	3.72E-01	3.00E-01	-	1.71E+02	1.38E+02	-	N
Diethyl phthalate	4.89E+04	n	4.90E+04	n	9.66E+00	4.70E+00	-	4.45E+03	2.17E+03	-	N
Dimethyl phthalate	6.11E+05	nl	-	-	8.06E+01	-	-	3.71E+04	-	-	N
Di-n-butyl phthalate	6.11E+03	n	6.10E+03	n	6.97E+00	1.70E+00	-	3.21E+03	7.84E+02	-	N
Di-n-octyl phthalate	-	-	-	-	-	-	-	-	-	-	N
Ethylbenzene	6.84E+01	c	5.40E+00	c	1.30E-02	1.50E-03	7.80E-01	5.98E+00	6.92E-01	3.60E+02	Y
Fluoranthene	2.29E+03	n	2.30E+03	n	1.22E+02	7.00E+01	-	5.61E+04	3.23E+04	-	N
Fluorene	2.29E+03	n	2.30E+03	n	2.03E+01	4.00E+00	-	9.36E+03	1.84E+03	-	Y
Hexachlorobenzene	3.04E+00	c	3.00E-01	c	3.98E-03	5.30E-04	1.30E-02	1.83E+00	2.44E-01	5.99E+00	N
Hexachlorobutadiene	6.11E+01	n	6.20E+00	c**	1.28E-02	5.00E-04	-	5.91E+00	2.31E-01	-	N
Hexachlorocyclopentadiene	3.67E+02	n	3.70E+02	n	5.27E-01	7.00E-02	1.60E-01	2.43E+02	3.23E+01	7.38E+01	N
Hexachloroethane	4.28E+01	n	1.20E+01	c**	8.18E-03	4.80E-04	-	3.77E+00	2.21E-01	-	N
2-Hexanone	9.38E+02	ns	2.10E+02	n	7.65E+00	7.90E-03	-	3.53E+03	3.64E+00	-	N
Indeno(1,2,3-cd)pyrene	1.48E+00	c	1.50E-01	c	8.63E-01	1.20E-01	-	3.98E+02	5.53E+01	-	N
Iron	5.48E+04	n	5.50E+04	n	6.46E+02	2.70E+02	-	2.98E+05	1.24E+05	-	Y
Isophorone	5.12E+03	c	5.10E+02	c*	1.92E-01	2.20E-02	-	8.84E+01	1.01E+01	-	N
Isopropylbenzene (cumene)	2.43E+03	ns	2.10E+03	ns	8.65E-01	6.40E-01	-	3.99E+02	2.95E+02	-	Y
4-Isopropyltoluene	-	-	-	-	-	-	-	-	-	-	N
Lead	4.00E+02	IEUBK	4.00E+02	L	-	-	1.40E+01	-	-	6.45E+03	Y
Manganese	1.86E+03	n	-	-	5.72E+01	-	-	2.64E+04	-	-	Y
Mercury	1.56E+01	ns	1.00E+01	ns	3.27E-02	3.30E-02	0.1	1.51E+01	1.52E+01	4.61E+01	Y
Methyl tert-butyl ether (MTBE)	9.01E+02	c	4.30E+01	c	2.41E-02	2.80E-03	-	1.11E+01	1.29E+00	-	Y
Methylene chloride	4.09E+02	n	5.60E+01	c**	4.12E-02	2.50E-03	1.30E-03	1.90E+01	1.15E+00	5.99E-01	N
1-Methylnaphthalene	-	-	1.60E+01	c	-	5.10E-03	-	-	2.35E+00	-	Y
2-Methylnaphthalene	-	-	2.30E+02	n	-	1.40E-01	-	-	6.45E+01	-	Y
2-Methylphenol	-	-	3.10E+03	n	-	5.80E-01	-	-	2.67E+02	-	N
3+4-Methylphenol	-	-	-	-	-	-	-	-	-	-	N
4-Methyl-2-pentanone	-	-	5.30E+03	ns	-	2.30E-01	-	-	1.06E+02	-	Y
2-Nitroaniline	-	-	6.10E+02	n	-	6.20E-02	-	-	2.86E+01	-	N
3-Nitroaniline	-	-	-	-	-	-	-	-	-	-	N
4-Nitroaniline	-	-	2.40E+01	c*	-	1.40E-03	-	-	6.45E-01	-	N
2-Nitrophenol	-	-	-	-	-	-	-	-	-	-	N
4-Nitrophenol	-	-	-	-	-	-	-	-	-	-	N
Naphthalene	4.30E+01	c	3.60E+00	c*	3.57E-03	4.70E-04	-	1.64E+00	2.17E-01	-	Y
n-Butylbenzene	-	-	3.90E+03	ns	-	2.50E+00	-	-	1.15E+03	-	N
Nickel	1.56E+03	n	1.50E+03	n	4.77E+01	2.00E+01	-	2.20E+04	9.22E+03	-	Y
Nitrobenzene	5.35E+01	c	4.80E+00	c*	6.24E-04	7.90E-05	-	2.88E-01	3.64E-02	-	N
N-Nitrosodi-n-propylamine	-	-	6.90E-02	c	-	7.00E-06	-	-	3.23E-03	-	N
N-Nitrosodiphenylamine	9.93E+02	c	9.90E+01	c	5.65E-01	5.70E-02	-	2.61E+02	2.63E+01	-	N
n-Propylbenzene	-	-	3.40E+03	ns	-	9.90E-01	-	-	4.56E+02	-	Y
Pentachlorophenol	8.94E+00	c	8.90E-01	c	1.28E-02	3.60E-04	0.01	5.90E+00	1.66E-01	4.61E+00	N
Phenanthrene	1.83E+03	ns	-	-	2.86E+01	-	-	1.32E+04	-	-	Y
Phenol	1.83E+04	n	1.80E+04	n	4.97E+00	2.60E+00	-	2.29E+03	1.20E+03	-	N
Pyrene	1.72E+03	n	1.70E+03	n	8.94E+01	9.50E+00	-	4.12E+04	4.38E+03	-	Y
Pyridine	-	-	7.80E+01	n	-	5.30E-03	-	-	2.44E+00	-	N
sec-Butylbenzene	-	-	-	-	-	-	-	-	-	-	Y
Selenium	3.91E+02	n	3.90E+02	n	9.65E-01	4.00E-01	2.60E-01	4.45E+02	1.84E+02	1.20E+02	N
Silver	3.91E+02	n	3.90E+02	n	1.57E+00	6.00E-01	-	7.22E+02	2.77E+02	-	N
Styrene	7.28E+03	ns	6.30E+03	ns	1.39E+00	1.20E+00	0.11	6.40E+02	5.53E+02	5.07E+01	N
1,2,3-Trichlorobenzene	-	-	4.90E+01	n	-	1.50E-02	-	-	6.92E+00	-	N

TABLE 4
Residential Soil Screening Levels
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analyte	NMED		EPA		Cross Media Soil-to-Ground Water NMED	Cross Media Soil-to-Ground Water EPA		Cross Media Soil-to-Ground Water NMED	Cross Media Soil-to-Ground Water EPA		Constituent Detected
	Residential Soil (mg/kg)	Endpoint	Residential Soil (mg/kg)	ResSoil key	DAF1 (mg/kg)	GW_Risk-based SSL (mgkg)	GW_MCL-based SSL (mg/kg)	DAF (461) (mg/kg)	GW_Risk-based SSL (461) (mg/kg)	GW_MCL-based SSL (461) (mg/kg)	
Applicable depth interval	0-10'		0-2'		All depths			All depths			
1,1,1,2-Tetrachloroethane	2.91E+01	c	1.90E+00	c	1.65E-03	1.90E-04	-	7.59E-01	8.76E-02	-	N
1,1,1-Trichloroethane	1.56E+04	ns	8.70E+03	ns	2.91E+00	2.60E+00	0.07	1.34E+03	1.20E+03	3.23E+01	N
1,1,2,2-Tetrachloroethane	8.02E+00	c	5.60E-01	c	2.13E-04	2.60E-05	-	9.82E-02	1.20E-02	-	N
1,1,2-Trichloroethane	2.81E+00	n	1.10E+00	c**	1.12E-04	7.70E-05	0.0016	5.14E-02	3.55E-02	7.38E-01	N
2,4,5-Trichlorophenol	6.11E+03	n	6.10E+03	n	1.04E+01	3.30E+00	-	4.78E+03	1.52E+03	-	N
2,4,6-Trichlorophenol	6.11E+01	n	4.40E+01	c**	1.04E-01	1.30E-02	-	4.78E+01	5.99E+00	-	N
1,2,3-Trichloropropane	4.97E-02	c	5.00E-03	c	2.50E-06	2.80E-07	-	1.15E-03	1.29E-04	-	N
1,2,4-Trichlorobenzene	7.30E+01	n	2.20E+01	c**	9.13E-03	2.90E-03	0.2	4.21E+00	1.34E+00	9.22E+01	N
1,2,4-Trimethylbenzene	-	-	6.20E+01	n	-	2.10E-02	-	-	9.68E+00	-	Y
1,3,5-Trimethylbenzene	-	-	7.80E+02	ns	-	1.20E-01	-	-	5.53E+01	-	Y
tert-Butylbenzene	-	-	-	-	-	-	-	-	-	-	N
Tetrachloroethene (PCE)	7.02E+00	c	2.20E+01	c**	4.30E-04	4.40E-03	0.0023	1.98E-01	2.03E+00	1.06E+00	N
Toluene	5.27E+03	ns	5.00E+03	ns	1.27E+00	5.90E-01	0.69	5.84E+02	2.72E+02	3.18E+02	Y
trans-1,2-DCE	2.70E+02	n	1.50E+02	n	2.69E-02	2.50E-02	2.90E-02	1.24E+01	1.15E+01	1.34E+01	N
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	N
Trichloroethene (TCE)	8.77E+00	n	9.10E-01	c**	1.05E-03	1.60E-04	0.0018	4.85E-01	7.38E-02	8.30E-01	N
Trichlorofluoromethane	1.41E+03	ns	7.90E+02	n	8.89E-01	6.90E-01	-	4.10E+02	3.18E+02	-	N
Vanadium	3.91E+02	n	3.90E+02	n	1.83E+02	7.80E+01	-	8.42E+04	3.60E+04	-	Y
Vinyl chloride	7.28E-01	c	6.00E-02	c	5.42E-05	5.30E-06	0.00069	2.50E-02	2.44E-03	3.18E-01	N
Xylenes, Total	8.14E+02	ns	6.30E+02	ns	1.56E-01	1.90E-01	9.8	7.21E+01	8.76E+01	4.52E+03	Y
Zinc	2.35E+04	n	2.30E+04	n	6.82E+02	2.90E+02	-	3.14E+05	1.34E+05	-	Y

c - carcinogen
n - noncarcinogen
cs - carcinogen, SSL November exceed saturation
ns - noncarcinogen, SSL November exceed saturation
nl - noncarcinogen, SSL may exceed ceiling limit
nls - noncarcinogen, SSL may exceed both saturation and ceiling limit
* = where n SL < 100X c SL, ** = where n SL < 10X c SL
- no screenig value currently available

NMED - Risk Assessment Guidance for Site Investigations and Remediation (June 14, 2012)
EPA - Regional Screening Levels (November 2012)

TABLE 5
Non- Residential Soil Screening Levels
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analyte	NMED				EPA		Cross Media Soil-to-Ground Water NMED	Cross Media Soil-to-Ground Water EPA		Cross Media Soil-to-Ground Water NMED	Cross Media Soil-to-Ground Water EPA		Constituent Detected
	IndOccSoil (mg/kg)	IndOccSoil (Endpoint)	ConsWork (mg/kg)	ConsWork Soil (Endpoint)	Industrial (mg/kg)	IndSoil _key	DAF1 (mg/kg)	GW_Risk-based SSL (mg/kg)	GW_MCL-based SSL (mg/kg)	DAF (461) (mg/kg)	GW_Risk-based SSL (461) (mg/kg)	GW_MCL-based SSL (461) (mg/kg)	
Applicable depth interval	0-2'		0-10'		0-2'		All depths			All depths			
Acenaphthene	3.67E+04	n	1.86E+04	n	3.30E+04	n	1.69E+01	4.10E+00	-	7.79E+03	1.89E+03	-	N
Acenaphthylene	-	-	-	-	-	-	-	-	-	-	-	-	N
Acetone	8.68E+05	nls	2.21E+05	nls	6.30E+05	nms	3.86E+00	2.40E+00	-	1.78E+03	1.11E+03	-	Y
Aniline	-	-	-	-	3.00E+02	c*	-	3.90E-03	-	-	1.80E+00	-	N
Anthracene	1.83E+05	nl	6.68E+04	n	1.70E+05	nm	2.71E+02	4.20E+01	-	1.25E+05	1.94E+04	-	N
Antimony	4.54E+02	n	1.24E+02	n	4.10E+02	n	6.61E-01	2.70E-01	0.27	3.05E+02	1.24E+02	1.24E+02	N
Arsenic	1.77E+01	c	5.30E+01	n	1.60E+00	c	1.31E-02	1.30E-03	0.29	6.05E+00	5.99E-01	1.34E+02	N
Azobenzene	-	-	-	-	2.30E+01	c	-	8.00E-04	-	-	3.69E-01	-	N
Barium	2.23E+05	nl	4.35E+03	n	1.90E+05	nm	3.01E+02	1.20E+02	82	1.39E+05	5.53E+04	3.78E+04	Y
Benz(a)anthracene	2.34E+01	c	2.13E+02	c	2.10E+00	c	7.83E-02	1.00E-02	-	3.61E+01	4.61E+00	-	N
Benzene	8.47E+01	c	1.38E+02	n	5.40E+00	c*	1.73E-03	2.00E-04	0.0026	7.96E-01	9.22E-02	1.20E+00	Y
Benzo(a)pyrene	2.34E+00	c	2.13E+01	c	2.10E-01	c	2.60E-02	3.50E-03	0.24	1.20E+01	1.61E+00	1.11E+02	N
Benzo(b)fluoranthene	2.34E+01	c	2.13E+02	c	2.10E+00	c	2.65E-01	3.50E-02	-	1.22E+02	1.61E+01	-	N
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	-	-	-	-	N
Benzo(k)fluoranthene	2.34E+02	c	2.06E+03	c	2.10E+01	c	2.60E+00	3.50E-01	-	1.20E+03	1.61E+02	-	N
Benzoic acid	-	-	-	-	2.50E+06	nm	-	1.40E+01	-	-	6.45E+03	-	N
Benzyl alcohol	-	-	-	-	6.20E+04	n	-	3.70E-01	-	-	1.71E+02	-	N
Beryllium	2.26E+03	n	1.44E+02	n	2.00E+03	n	5.77E+01	1.30E+01	3.2	2.66E+04	5.99E+03	1.48E+03	Y
Bis(2-chloroethoxy)methane	-	-	-	-	1.80E+03	n	-	1.10E-02	-	-	5.07E+00	-	N
Bis(2-chloroethyl)ether	1.42E+01	c	7.78E+01	c	1.00E+00	c	2.63E-05	3.10E-06	-	1.21E-02	1.43E-03	-	N
Bis(2-chloroisopropyl)ether	4.54E+02	cs	3.10E+03	cs	2.20E+01	c	2.33E-03	1.10E-04	-	1.07E+00	5.07E-02	-	N
Bis(2-ethylhexyl)phthalate	1.37E+03	cs	4.76E+03	n	1.20E+02	c	8.62E+00	1.70E-02	1.4	3.97E+03	7.84E+00	6.45E+02	Y
Bromobenzene	-	-	-	-	1.80E+03	ns	-	3.60E-02	-	-	1.66E+01	-	N
Bromodichloromethane	3.01E+01	c	1.43E+02	c	1.40E+00	c	2.71E-04	3.20E-05	0.022	1.25E-01	1.48E-02	1.01E+01	N
Bromoform	2.42E+03	c	4.76E+03	n	2.20E+02	c*	6.04E-01	2.10E-03	0.021	2.78E+02	9.68E-01	9.68E+00	N
Bromomethane	8.65E+01	n	1.64E+01	n	3.20E+01	n	1.92E-03	1.80E-03	-	8.86E-01	8.30E-01	-	N
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	-	-	-	-	N
2-Butanone (MEK)	3.75E+05	nls	8.43E+04	nls	2.00E+05	nms	1.27E+00	1.00E+00	-	5.87E+02	4.61E+02	-	Y
Butyl benzyl phthalate	-	-	-	-	9.10E+02	c	-	2.00E-01	-	-	9.22E+01	-	N
Cadmium	8.97E+02	n	2.77E+02	n	8.00E+02	n	1.37E+00	-	-	6.33E+02	-	-	N
Carbazole	-	-	-	-	-	-	-	-	-	-	-	-	N
Carbon disulfide	8.33E+03	ns	1.58E+03	ns	3.70E+03	ns	2.83E-01	2.10E-01	-	1.30E+02	9.68E+01	-	Y
Carbon tetrachloride	5.98E+01	c	2.26E+02	ns	3.00E+00	c	1.60E-03	1.50E-04	0.0019	7.39E-01	6.92E-02	8.76E-01	N
Chlorobenzene	2.12E+03	ns	4.06E+02	ns	1.40E+03	ns	4.92E-02	4.90E-02	0.068	2.27E+01	2.26E+01	3.13E+01	N
Chloroethane	1.41E+05	nls	2.61E+04	nls	6.10E+04	ns	5.37E+00	5.90E+00	-	2.48E+03	2.72E+03	-	N
Chloroform	3.27E+01	c	1.54E+02	c	1.50E+00	c	4.59E-04	5.30E-05	0.022	2.12E-01	2.44E-02	1.01E+01	N
Chloromethane	1.29E+03	cs	2.41E+02	n	5.00E+02	n	4.40E-02	4.90E-02	-	2.03E+01	2.26E+01	-	N
4-Chloro-3-methylphenol	-	-	-	-	6.20E+04	n	-	1.30E+00	-	-	5.99E+02	-	N
4-Chloroaniline	-	-	-	-	8.60E+00	c	-	1.30E-04	-	-	5.99E-02	-	N
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	-	-	-	-	N
4-Chlorotoluene	-	-	-	-	2.00E+04	ns	-	1.80E-01	-	-	8.30E+01	-	N
2-Chloronaphthalene	1.49E+02	n	2.94E+02	n	8.20E+04	ns	8.69E-04	2.90E+00	-	4.01E-01	1.34E+03	-	N
2-Chlorophenol	5.68E+03	n	1.55E+03	n	5.10E+03	n	1.16E-01	5.70E-02	-	5.33E+01	2.63E+01	-	N
2-Chlorotoluene	2.27E+04	ns	6.19E+03	ns	2.00E+04	ns	5.58E-01	1.70E-01	-	2.57E+02	7.84E+01	-	N
Chromium III	1.70E+06	nl	4.65E+05	nl	1.50E+06	nm	9.86E+07	2.80E+07	-	4.54E+10	1.29E+10	-	Y
Chromium VI	6.31E+01	n	6.56E+01	c	5.60E+00	c	8.31E-03	5.90E-04	-	3.83E+00	2.72E-01	-	Y
Chrysene	2.34E+03	c	2.06E+04	c	2.10E+02	c	7.99E+00	1.10E+00	-	3.68E+03	5.07E+02	-	N
cis-1,2-DCE	2.27E+03	ns	6.19E+02	c	2.00E+03	n	1.84E-02	8.20E-03	2.10E-02	8.47E+00	3.78E+00	9.68E+00	N
cis-1,3-Dichloropropene	1.77E+02	c	2.09E+02	ns	-	-	1.24E-03	-	-	5.71E-01	-	-	N
Cobalt	-	-	-	-	3.00E+02	n	-	2.10E-01	-	-	9.68E+01	-	Y
Cyanide	6.81E+02	n	1.86E+02	n	6.10E+02	n	2.21E-01	9.40E-02	2	1.02E+02	4.33E+01	9.22E+02	Y
1,1-Dichloroethane	3.59E+02	c	1.70E+03	cs	1.70E+01	c	5.98E-03	6.80E-04	-	2.75E+00	3.13E-01	-	N
1,1-Dichloroethene	2.29E+03	ns	4.32E+02	ns	1.10E+03	n	1.16E-01	9.30E-02	0.0025	5.36E+01	4.29E+01	1.15E+00	N
1,1-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-	N
1,2-Dibromo-3-chloropropane	1.08E+00	c	5.07E+00	c	6.90E-02	c	1.10E-06	1.40E-07	8.60E-05	5.07E-04	6.45E-05	3.96E-02	N
1,2-Dibromoethane (EDB)	3.22E+00	c	1.60E+01	c	1.70E-01	c	1.54E-05	1.80E-06	1.40E-05	7.10E-03	8.30E-04	6.45E-03	N
1,2-Dichlorobenzene	1.40E+04	ns	2.71E+03	ns	9.80E+03	ns	2.80E-01	2.70E-01	0.58	1.29E+02	1.24E+02	2.67E+02	N
3,3'-Dichlorobenzidine	4.26E+01	c	3.64E+02	c	3.80E+00	c	7.40E-03	7.10E-04	-	3.41E+00	3.27E-01	-	N
1,2-Dichloroethane (EDC)	4.35E+01	c	5.87E+01	n	2.20E+00	c*	3.56E-04	4.20E-05	0.0014	1.64E-01	1.94E-02	6.45E-01	N
1,2-Dichloropropane	8.44E+01	c	2.50E+01	n	4.70E+00	c*	1.07E-03	1.30E-04	0.0017	4.94E-01	5.99E-02	7.84E-01	N
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	-	-	-	-	N
1,3-Dichloropropane	-	-	-	-	2.00E+04	ns	-	9.90E-02	-	-	4.56E+01	-	N
1,4-Dichlorobenzene	1.77E+02	c	8.31E+02	cs	1.20E+01	c	3.19E-03	4.00E-04	0.072	1.47E+00	1.84E-01	3.32E+01	N
2,2-Dichloropropane	-	-	-	-	-	-	-	-	-	-	-	-	N
2,4-Dichlorophenol	2.05E+03	n	7.15E+02	n	1.80E+03	n	9.98E-02	4.10E-02	-	4.60E+01	1.89E+01	-	N
2,4-Dimethylphenol	1.37E+04	n	4.76E+03	n	1.20E+04	n	6.65E-01	3.20E-01	-	3.07E+02	1.48E+02	-	Y
4,6-Dinitro-2-methylphenol	-	-	-	-	4.90E+01	n	-	2.00E-03	-	-	9.22E-01	-	N
2,4-Dinitrophenol	1.37E+03	n	4.76E+02	n	1.20E+03	n	6.31E-02	3.40E-02	-	2.91E+01	1.57E+01	-	N
2,4-Dinitrotoluene	6.18E+01	c	4.76E+02	n	5.50E+00	c	2.25E-03	2.80E-04	-	1.04E+00	1.29E-01	-	N
2,6-Dinitrotoluene	6.84E+02	n	2.38E+02	n	6.20E+02	n	3.85E-02	2.00E-02	-	1.77E+01	9.22E+00	-	N
Dibenz(a,h)anthracene	2.34E+00	c	2.13E+01	c	2.10E-01	c	8.46E-02	1.10E-02	-	3.90E+01	5.07E+00	-	N
Dibenzofuran	-	-	-	-	1.00E+03	ns	-	1.10E-01	-	-	5.07E+01	-	N
Dibromochloromethane	6.24E+01	c	3.32E+02	cs	3.30E+00	c	3.31E-04	3.90E-05	2.10E-02	1.52E-01	1.80E-02	9.68E+00	N
Dibromomethane	2.54E+02	n	3.10E+03	ns	1.10E+02	n	1.71E-03	1.90E-03	-	7.89E-01	8.76E-01	-	N
Dichlorodifluoromethane	7.98E+02	ns	1.49E+02	ns	4.00E+02	n	3.72E-01	3.00E-01	-	1.71E+02	1.38E+02	-	N
Diethyl phthalate	5.47E+05	nl	1.91E+05	nl	4.90E+05	nm	9.66E+00	4.70E+00	-	4.45E+03	2.17E+03	-	N

TABLE 5
Non- Residential Soil Screening Levels
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analyte	NMED				EPA		Cross Media Soil-to-Ground Water NMED	Cross Media Soil-to-Ground Water EPA		Cross Media Soil-to-Ground Water NMED	Cross Media Soil-to-Ground Water EPA		Constituent Detected
	IndOccSoil (mg/kg)	IndOccSoil (Endpoint)	ConsWork (mg/kg)	ConsWork Soil (Endpoint)	Industrial (mg/kg)	IndSoil _key	DAF1 (mg/kg)	GW_Risk-based SSL (mg/kg)	GW_MCL-based SSL (mg/kg)	DAF (461) (mg/kg)	GW_Risk-based SSL (461) (mg/kg)	GW_MCL-based SSL (461) (mg/kg)	
Dimethyl phthalate	6.84E+06	nl	2.38E+06	nl	-	-	8.06E+01	-	-	3.71E+04	-	-	N
Di-n-butyl phthalate	6.84E+04	n	2.38E+04	n	6.20E+04	n	6.97E+00	1.70E+00	-	3.21E+03	7.84E+02	-	N
Di-n-octyl phthalate	-	-	-	-	-	-	-	-	-	-	-	-	N
Ethylbenzene	3.78E+02	cs	1.83E+03	cs	2.70E+01	c	1.30E-02	1.50E-03	7.80E-01	5.98E+00	6.92E-01	3.60E+02	Y
Fluoranthene	2.44E+04	n	8.91E+03	n	2.20E+04	n	1.22E+02	7.00E+01	-	5.61E+04	3.23E+04	-	N
Fluorene	2.44E+04	ns	8.91E+03	ns	2.20E+04	n	2.03E+01	4.00E+00	-	9.36E+03	1.84E+03	-	Y
Hexachlorobenzene	1.20E+01	c	1.03E+02	c	1.10E+00	c	3.98E-03	5.30E-04	1.30E-02	1.83E+00	2.44E-01	5.99E+00	N
Hexachlorobutadiene	2.46E+02	c	2.38E+02	n	2.20E+01	c*	1.28E-02	5.00E-04	-	5.91E+00	2.31E-01	-	N
Hexachlorocyclopentadiene	4.10E+03	n	8.11E+02	n	3.70E+03	n	5.27E-01	7.00E-02	1.60E-01	2.43E+02	3.23E+01	7.38E+01	N
Hexachloroethane	4.79E+02	n	1.67E+02	n	4.30E+01	c*	8.18E-03	4.80E-04	-	3.77E+00	2.21E-01	-	N
2-Hexanone	5.11E+03	ns	9.73E+02	ns	1.40E+03	n	7.65E+00	7.90E-03	-	3.53E+03	3.64E+00	-	N
Indeno(1,2,3-cd)pyrene	2.34E+01	c	2.13E+02	c	2.10E+00	c	8.63E-01	1.20E-01	-	3.98E+02	5.53E+01	-	N
Iron	7.95E+05	nl	2.17E+05	nl	7.20E+05	nm	6.46E+02	2.70E+02	-	2.98E+05	1.24E+05	-	Y
Isophorone	1.37E+05	cs	4.75E+04	n	1.80E+03	c*	1.92E-01	2.20E-02	-	8.84E+01	1.01E+01	-	N
Isopropylbenzene (cumene)	1.45E+04	ns	2.81E+03	ns	1.10E+04	ns	8.65E-01	6.40E-01	-	3.99E+02	2.95E+02	-	Y
4-Isopropyltoluene	-	-	-	-	-	-	-	-	-	-	-	-	N
Lead	8.00E+02	IEUBK	8.00E+02	IEUBK	8.00E+02	L	-	-	1.40E+01	-	-	6.45E+03	Y
Manganese	2.67E+04	nl	4.40E+02	n	-	-	5.72E+01	-	-	2.64E+04	-	-	Y
Mercury	7.36E+01	ns	1.36E+01	ns	4.30E+01	ns	3.27E-02	3.30E-02	0.1	1.51E+01	1.52E+01	4.61E+01	Y
Methyl tert-butyl ether (MTBE)	4.89E+03	c	2.49E+04	cs	2.20E+02	c	2.41E-02	2.80E-03	-	1.11E+01	1.29E+00	-	Y
Methylene chloride	4.70E+03	c	1.12E+03	ns	9.60E+02	c**	4.12E-02	2.50E-03	1.30E-03	1.90E+01	1.15E+00	5.99E-01	N
1-Methylnaphthalene	-	-	-	-	5.30E+01	c	-	5.10E-03	-	-	2.35E+00	-	Y
2-Methylnaphthalene	-	-	-	-	2.20E+03	ns	-	1.40E-01	-	-	6.45E+01	-	Y
2-Methylphenol	-	-	-	-	3.10E+04	n	-	5.80E-01	-	-	2.67E+02	-	N
3+4-Methylphenol	-	-	-	-	-	-	-	-	-	-	-	-	N
4-Methyl-2-pentanone	-	-	-	-	5.30E+04	ns	-	2.30E-01	-	-	1.06E+02	-	Y
2-Nitroaniline	-	-	-	-	6.00E+03	n	-	6.20E-02	-	-	2.86E+01	-	N
3-Nitroaniline	-	-	-	-	-	-	-	-	-	-	-	-	N
4-Nitroaniline	-	-	-	-	8.60E+01	c*	-	1.40E-03	-	-	6.45E-01	-	N
2-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-	N
4-Nitrophenol	-	-	-	-	-	-	-	-	-	-	-	-	N
Naphthalene	2.41E+02	c	1.58E+02	n	1.80E+01	c*	3.57E-03	4.70E-04	-	1.64E+00	2.17E-01	-	Y
n-Butylbenzene	-	-	-	-	5.10E+04	ns	-	2.50E+00	-	-	1.15E+03	-	N
Nickel	2.25E+04	n	6.19E+03	n	2.00E+04	n	4.77E+01	2.00E+01	-	2.20E+04	9.22E+03	-	Y
Nitrobenzene	3.00E+02	c	3.32E+02	n	2.40E+01	c*	6.24E-04	7.90E-05	-	2.88E-01	3.64E-02	-	N
N-Nitrosodi-n-propylamine	-	-	-	-	2.50E-01	c	-	7.00E-06	-	-	3.23E-03	-	N
N-Nitrosodiphenylamine	3.91E+03	c	3.36E+04	c	3.50E+02	c	5.65E-01	5.70E-02	-	2.61E+02	2.63E+01	-	N
n-Propylbenzene	-	-	-	-	2.10E+04	ns	-	9.90E-01	-	-	4.56E+02	-	Y
Pentachlorophenol	3.00E+01	c	3.10E+02	c	2.70E+00	c	1.28E-02	3.60E-04	0.01	5.90E+00	1.66E-01	4.61E+00	N
Phenanthrene	2.05E+04	n	7.15E+03	n	-	-	2.86E+01	-	-	1.32E+04	-	-	Y
Phenol	2.05E+05	nl	6.88E+04	n	1.80E+05	nm	4.97E+00	2.60E+00	-	2.29E+03	1.20E+03	-	N
Pyrene	1.83E+04	n	6.68E+03	n	1.70E+04	n	8.94E+01	9.50E+00	-	4.12E+04	4.38E+03	-	Y
Pyridine	-	-	-	-	1.00E+03	n	-	5.30E-03	-	-	2.44E+00	-	N
sec-Butylbenzene	-	-	-	-	-	-	-	-	-	-	-	-	Y
Selenium	5.68E+03	n	1.55E+03	n	5.10E+03	n	9.65E-01	4.00E-01	2.60E-01	4.45E+02	1.84E+02	1.20E+02	N
Silver	5.68E+03	n	1.55E+03	n	5.10E+03	n	1.57E+00	6.00E-01	-	7.22E+02	2.77E+02	-	N
Styrene	5.00E+04	ns	9.99E+03	ns	3.60E+04	ns	1.39E+00	1.20E+00	0.11	6.40E+02	5.53E+02	5.07E+01	N
1,2,3-Trichlorobenzene	-	-	-	-	4.90E+02	ns	-	1.50E-02	-	-	6.92E+00	-	N
1,1,1,2-Tetrachloroethane	1.61E+02	c	7.79E+02	cs	9.30E+00	c	1.65E-03	1.90E-04	-	7.59E-01	8.76E-02	-	N
1,1,1-Trichloroethane	7.89E+04	ns	1.48E+04	ns	3.80E+04	ns	2.91E+00	2.60E+00	0.07	1.34E+03	1.20E+03	3.23E+01	N
1,1,2,2-Tetrachloroethane	4.35E+01	c	2.21E+02	c	2.80E+00	c	2.13E-04	2.60E-05	-	9.82E-02	1.20E-02	-	N
1,1,2-Trichloroethane	1.33E+01	c	4.72E+02	ns	5.30E+00	c**	1.12E-04	7.70E-05	0.0016	5.14E-02	3.55E-02	7.38E-01	N
2,4,5-Trichlorophenol	6.84E+04	n	2.38E+04	n	6.20E+04	n	1.04E+01	3.30E+00	-	4.78E+03	1.52E+03	-	N
2,4,6-Trichlorophenol	6.84E+02	n	2.38E+02	n	1.60E+02	c**	1.04E-01	1.30E-02	-	4.78E+01	5.99E+00	-	N
1,2,3-Trichloropropane	3.76E+01	c	7.23E+00	c	9.50E-02	c	2.50E-06	2.80E-07	-	1.15E-03	1.29E-04	-	N
1,2,4-Trichlorobenzene	3.67E+02	ns	6.87E+01	ns	9.90E+01	c**	9.13E-03	2.90E-03	0.2	4.21E+00	1.34E+00	9.22E+01	N
1,2,4-Trimethylbenzene	-	-	-	-	2.60E+02	ns	-	2.10E-02	-	-	9.68E+00	-	Y
1,3,5-Trimethylbenzene	-	-	-	-	1.00E+04	ns	-	1.20E-01	-	-	5.53E+01	-	Y
tert-Butylbenzene	-	-	-	-	-	-	-	-	-	-	-	-	N
Tetrachloroethene (PCE)	3.66E+01	c	2.12E+02	cs	1.10E+02	c**	4.30E-04	4.40E-03	0.0023	1.98E-01	2.03E+00	1.06E+00	N
Toluene	5.77E+04	ns	1.34E+04	ns	4.50E+04	ns	1.27E+00	5.90E-01	0.69	5.84E+02	2.72E+02	3.18E+02	Y
trans-1,2-DCE	1.44E+03	ns	2.73E+02	ns	6.90E+02	n	2.69E-02	2.50E-02	2.90E-02	1.24E+01	1.15E+01	1.34E+01	N
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	-	-	-	-	N
Trichloroethene (TCE)	4.13E+01	c	7.68E+00	cs	6.40E+00	c**	1.05E-03	1.60E-04	0.0018	4.85E-01	7.38E-02	8.30E-01	N
Trichlorofluoromethane	6.94E+03	ns	1.30E+03	ns	3.40E+03	ns	8.89E-01	6.90E-01	-	4.10E+02	3.18E+02	-	N
Vanadium	5.68E+03	n	1.55E+03	n	5.20E+03	n	1.83E+02	7.80E+01	-	8.42E+04	3.60E+04	-	Y
Vinyl chloride	2.61E+01	c	1.49E+02	c	1.70E+00	c	5.42E-05	5.30E-06	0.00069	2.50E-02	2.44E-03	3.18E-01	N
Xylenes, Total	3.98E+03	ns	7.43E+02	ns	2.70E+03	ns	1.56E-01	1.90E-01	9.8	7.21E+01	8.76E+01	4.52E+03	Y
Zinc	3.41E+05	nl	9.29E+04	n	3.10E+05	nm	6.82E+02	2.90E+02	-	3.14E+05	1.34E+05	-	Y

c - carcinogen
n - noncarcinogen
cs - carcinogen, SSL November exceed saturation
ns - noncarcinogen, SSL November exceed saturation
- no screenig value currently available

nl - noncarcinogen, SSL may exceed ceiling limit
nls - noncarcinogen, SSL may exceed both saturation and ceiling limit
* = where n SL < 100X c SL, ** = where n SL < 10X c SL

NMED - Risk Assessment Guidance for Site Investigations and Remediation (June 14, 2012)
EPA - Regional Screening Levels (November 2012)

Table 6
Groundwater Screening Levels
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

	NMED			EPA			
Analyte	NMED WQCC Standards (mg/L)	NMED Tap Water mg/L	Tap Water key	EPA Screening Levels Tap Water (mg/L)	Tap Water key	MCL (mg/L)	Constituent Detected
	(1)	(3)		(4)		(2)	
Acenaphthene	-	**2.19**	n	4.00E-01	n	-	**N**
Acenaphthylene	-	-	-	-	-	-	**N**
Acetone	-	**21.78289**	n	1.20E+01	n	-	Y
Aniline	-	-	-	**1.20E-01**	c**	-	**N**
Anthracene	-	**10.95**	n	1.30E+00	n	-	**N**
Antimony	-	0.0146	n	6.00E-03	n	**0.006**	**N**
Arsenic	0.1	0.000448	c	4.50E-04	c	**0.01**	Y
Azobenzene	-	-	-	**1.00E-03**	c	-	**N**
Barium	**1**	7.3	n	2.90E+00	n	2	Y
Benz(a)anthracene	-	**0.000295**	c	2.90E-04	c	-	**N**
Benzene	0.01	0.00413	c	3.90E-03	c*	**0.005**	Y
Benzo(a)pyrene	0.0007	2.95E-05	c	2.90E-05	c	**0.0002**	**N**
Benzo(b)fluoranthene	-	**0.000295**	c	2.90E-04	c	-	**N**
Benzo(g,h,i)perylene	-	-	-	-	-	-	**N**
Benzo(k)fluoranthene	-	**0.00295**	c	2.90E-03	c	-	**N**
Benzoic acid	-	-	-	**5.80E+01**	n	-	**N**
Benzyl alcohol	-	-	-	**1.50E+00**	n	-	**N**
Beryllium	-	0.073	n	1.60E-02	n	**0.004**	Y
Bis(2-chloroethoxy)methane	-	-	-	**4.60E-02**	n	-	**N**
Bis(2-chloroethyl)ether	-	**0.000119**	c	1.20E-04	c	-	**N**
Bis(2-chloroisopropyl)ether	-	**0.0096**	c	3.10E-03	c	-	**N**
Bis(2-ethylhexyl)phthalate	-	0.048	c	4.80E-02	c*	**0.006**	**N**
Bromobenzene	-	-	-	**5.40E-02**	n	-	**N**
Bromodichloromethane	-	0.001173	c	1.20E-03	c	**0.08**	**N**
Bromoform	-	0.085063	c	7.90E-02	c*	**0.08**	Y
Bromomethane	-	**0.008661**	n	7.00E-03	n	-	Y
4-Bromophenyl phenyl ether	-	-	-	-	-	-	**N**
Butyl benzyl phthalate	-	-	-	**1.40E-01**	c*	-	**N**
2-Butanone (MEK)	-	**7.064516**	n	4.90E+00	n	-	Y
Cadmium	0.01	0.01825	n	-	-	-	**N**
Carbazole	-	-	-	-	-	-	**N**
Carbon disulfide	-	**1.042857**	n	7.20E-01	n	-	Y
Carbon tetrachloride	0.01	0.004396	c	3.90E-03	c	**0.005**	**N**
Chlorobenzene	-	0.09125	n	7.20E-02	n	**0.1**	**N**
Chloroethane	-	**20.85714**	n	2.10E+01	n	-	**N**
Chloroform	0.1	0.001928	c	1.90E-03	c	**0.08**	**N**
Chloromethane	-	**0.187714**	n	1.90E-01	n	-	Y
4-Chloro-3-methylphenol	-	-	-	**1.10E+00**	n	-	**N**
4-Chloroaniline	-	-	-	**3.20E-03**	c	-	**N**
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	**N**
4-Chlorotoluene	-	-	-	**1.90E-01**	n	-	**N**
2-Chloronaphthalene	-	**0.00121**	n	5.50E-01	n	-	**N**
2-Chlorophenol	-	**0.1825**	n	7.10E-02	n	-	**N**
2-Chlorotoluene	-	**0.73**	n	1.80E-01	n	-	**N**
Chromium III	**0.05**	54.75	n	1.60E+00	n	-	Y
Chromium VI	0.05	0.000431	c	3.10E-04	c	-	N
Chrysene	-	**0.029499**	c	2.90E-02	c	-	**N**
Cobalt	**0.05**	-	-	4.70E-03	n	-	Y
Cyanide, Total	**0.2**	0.0219	n	1.40E-03	n	0.2	Y

Table 6
Groundwater Screening Levels
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

	NMED			EPA			
Analyte	NMED WQCC Standards (mg/L)	NMED Tap Water mg/L	Tap Water key	EPA Screening Levels Tap Water (mg/L)	Tap Water key	MCL (mg/L)	Constituent Detected
	(1)	(3)		(4)		(2)	
Dibenz(a,h)anthracene	-	**2.95E-05**	c	2.90E-05	c	-	**N**
Dibenzofuran	-	-	-	**2.20E-01**	n	-	**N**
Dibromochloromethane	-	0.001471	c	1.50E-03	c	**0.08**	**N**
cis-1,2-DCE	-	0.073	n	2.80E-02	n	**0.07**	**N**
trans-1,2-DCE	-	0.106829	n	8.60E-02	n	**0.1**	**N**
cis-1,3-Dichloropropene	-	**0.004329**	c	-	-	-	**N**
trans-1,3-Dichloropropene	-	-	-	-	-	-	**N**
Dibromomethane	-	**0.008156**	n	7.90E-03	n	-	**N**
1,2-Dibromo-3-chloropropane	-	3.16E-06	c	3.20E-06	c	**0.0002**	**N**
1,2-Dibromoethane (EDB)	0.0001	6.53E-05	c	6.50E-05	c	**0.00005**	**N**
1,2-Dichlorobenzene	-	0.370141	n	2.80E-01	n	**0.6**	**N**
1,3-Dichlorobenzene	-	-	-	-	-	-	**N**
1,4-Dichlorobenzene	-	0.004272	c	4.20E-03	c	**0.075**	**N**
3,3´-Dichlorobenzidine	-	**0.001493**	c	1.10E-03	c	-	**N**
Dichlorodifluoromethane	-	**0.202778**	n	1.90E-01	n	-	**N**
1,1-Dichloroethane	**0.025**	0.024176	c	2.40E-02	c	-	**N**
1,2-Dichloroethane (EDC)	0.01	0.001493	c	1.50E-03	c*	**0.005**	**N**
1,1-Dichloroethene	**0.005**	0.339535	n	2.60E-01	n	0.007	**N**
2,4-Dichlorophenol	-	**0.1095**	n	3.50E-02	n	-	**N**
1,2-Dichloropropane	-	0.00386	c	3.80E-03	c*	**0.005**	**N**
2,2-Dichloropropane	-	-	-	-	-	-	**N**
1,3-Dichloropropane	-	-	-	**2.90E-01**	n	-	**N**
1,1-Dichloropropene	-	-	-	-	-	-	**N**
Diethyl phthalate	-	**29.2**	n	1.10E+01	n	-	**N**
Dimethyl phthalate	-	**365**	n	-	-	-	Y
2,4-Dimethylphenol	-	**0.73**	n	2.70E-01	n	-	Y
4,6-Dinitro-2-methylphenol	-	-	-	**1.20E-03**	n	-	**N**
2,4-Dinitrophenol	-	**0.073**	n	3.00E-02	n	-	**N**
2,4-Dinitrotoluene	-	**0.002168**	c	2.00E-03	c	-	**N**
2,6-Dinitrotoluene	-	**0.0365**	n	1.50E-02	n	-	**N**
Di-n-butyl phthalate	-	**3.65**	n	6.70E-01	n	-	**N**
Di-n-octyl phthalate	-	-	-	-	-	-	**N**
Ethylbenzene	0.75	0.014761	c	1.30E-02	c	**0.7**	Y
Fluoranthene	-	**1.46**	n	6.30E-01	n	-	**N**
Fluorene	-	**1.46**	n	2.20E-01	n	-	**N**
Hexachlorobenzene	-	0.00042	c	4.20E-04	c	**0.001**	**N**
Hexachlorobutadiene	-	**0.008615**	c	2.60E-03	c*	-	**N**
Hexachlorocyclopentadiene	-	0.219	n	2.20E-02	n	**0.05**	**N**
Hexachloroethane	-	**0.0168**	c	7.90E-03	c**	-	**N**
2-Hexanone	-	**0.876**	n	3.40E-02	n	-	Y
Indeno(1,2,3-cd)pyrene	-	**0.000295**	c	2.90E-04	c	-	**N**
Iron, Total	**1**	25.55	n	1.10E+01	n	-	Y
Isophorone	-	**0.707368**	c	6.70E-01	c*	-	**N**
Isopropylbenzene (Cumene)	-	**0.67907**	n	3.90E-01	n	-	Y
4-Isopropyltoluene	-	-	-	-	-	-	Y
Lead	0.05	-	-	-	L	0.015	Y
Manganese	**0.2**	0.876	n	-	-	-	Y
Mercury	**0.002**	0.000626	n	6.30E-04	n	**0.002**	Y
Methyl tert-butyl ether (MTBE)	-	**0.124661**	c	1.20E-01	c	-	Y

Table 6
Groundwater Screening Levels
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

	NMED			EPA			
Analyte	NMED WQCC Standards (mg/L)	NMED Tap Water mg/L	Tap Water key	EPA Screening Levels Tap Water (mg/L)	Tap Water key	MCL (mg/L)	Constituent Detected
	(1)	(3)		(4)		(2)	
Methylene chloride	0.1	0.186383	n	9.90E-02	c**	**0.005**	**N**
1-Methylnaphthalene	-	-	-	**9.70E-03**	c	-	Y
2-Methylnaphthalene	-	-	-	**2.70E-02**	n	-	Y
2-Methylphenol	-	-	-	**7.20E-01**	n	-	Y
3+4-Methylphenol	-	-	-	-	-	-	Y
4-Methyl-2-pentanone	-	-	-	**1.00E+00**	n	-	Y
Naphthalene	-	**0.001431**	c	1.40E-03	c*	-	Y
n-Butylbenzene	-	-	-	**7.80E-01**	n	-	**N**
Nickel	**0.2**	0.73	n	3.00E+00	n	-	Y
2-Nitroaniline	-	-	-	**1.50E-01**	n	-	**N**
3-Nitroaniline	-	-	-	-	-	-	**N**
4-Nitroaniline	-	-	-	**3.30E-02**	c*	-	**N**
2-Nitrophenol	-	-	-	-	-	-	Y
4-Nitrophenol	-	-	-	-	-	-	Y
Nitrobenzene	-	**0.001217**	c	1.20E-03	c*	-	**N**
N-Nitrosodimethylamine	-	**4.22E-06**	c	4.20E-06	c		**N**
N-Nitrosodi-n-propylamine	-	-	-	**9.30E-05**	c	-	**N**
N-Nitrosodiphenylamine	-	**0.137143**	c	1.00E-01	c	-	**N**
n-Propylbenzene	-	-	-	**5.30E-01**	n	-	Y
Pentachlorophenol	-	**0.00168**	c	3.50E-04	c	**0.001**	**N**
Phenanthrene	-	**1.095**	n	-	-	-	**N**
Phenol	**0.005**	10.95	n	4.50E+00	n	-	**N**
Pyrene	-	**1.095**	n	8.70E-02	n	-	**N**
Pyridine	-	-	-	**1.50E-02**	n	-	**N**
sec-Butylbenzene	-	-	-	-	-	-	Y
Selenium	**0.05**	0.1825	n	7.80E-02	n	**0.05**	Y
Silver	**0.05**	0.1825	n	7.10E-02	n	-	**N**
Styrene	-	1.622222	n	1.10E+00	n	**0.1**	**N**
tert-Butylbenzene	-	-	-	-	-	-	**N**
Tetrachloroethene (PCE)	0.02	0.001081	c	9.70E-02	c**	**0.005**	**N**
1,1,1,2-Tetrachloroethane	-	**0.005242**	c	5.00E-03	c	-	**N**
Toluene	**0.75**	2.28125	n	8.60E-01	n	1	Y
1,2,3-Trichlorobenzene	-	-	-	**5.20E-02**	n	-	**N**
1,2,4-Trichlorobenzene	-	0.004124	n	9.90E-03	c**	**0.07**	**N**
2,4,5-Trichlorophenol	-	**3.65**	n	8.90E-01	n	-	**N**
2,4,6-Trichlorophenol	-	**0.0365**	n	3.50E-02	c**	-	**N**
1,2,3-Trichloropropane	-	**7.18E-06**	c	6.50E-06	c	-	**N**
1,2,4-Trimethylbenzene	-	-	-	**1.50E-02**	n	-	Y
1,1,1-Trichloroethane	**0.06**	9.125	n	7.50E+00	n	0.2	**N**
1,1,2,2-Tetrachloroethane	**0.02**	0.000671	c	6.60E-04	c	-	**N**
1,1,2-Trichloroethane	0.1	0.000416	n	2.40E-03	c**	**0.005**	**N**
Trichloroethene (TCE)	0.1	0.003395	n	4.40E-03	c**	**0.005**	**N**
Trichlorofluoromethane	-	**1.288235**	n	1.10E+00	n	-	**N**
1,3,5-Trimethylbenzene	-	-	-	**8.70E-02**	n	-	Y
Vanadium	-	**0.1825**	n	7.80E-02	n	-	Y
Vinyl chloride	**0.001**	0.000162	c	1.50E-04	c	0.002	**N**
Xylenes, Total	**0.62**	0.202778	n	1.90E-01	n	10	Y
Zinc	**10**	10.95	n	4.70E+00	n	-	Y
General Chemistry	-						

Table 6
Groundwater Screening Levels
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

	NMED			EPA			
Analyte	NMED WQCC Standards (mg/L)	NMED Tap Water mg/L	Tap Water key	EPA Screening Levels Tap Water (mg/L)	Tap Water key	MCL (mg/L)	Constituent Detected
	(1)	(3)		(4)		(2)	
Chloride	-	-	-	-	-	-	**N**
Fluoride	**1.6**	1.46	n	0.93	n	-	**N**
Sulfate	-	-	-	-	-	-	**N**
Total Dissolved Solids	-	-	-	-	-	-	**N**
Diesel Range Organics (DRO)	-	-	-	-	-	-	Y
Gasoline Range Organics (GRO)	-	-	-	-	-	-	Y
Motor Oil Range Organics (MRO)	-	-	-	-	-	-	**N**

c - cancer, * = where n SL < 100X c SL, ** = where n SL < 10X c SL
n - noncancer
620 - Bolded value is applicable screening level
-
EPA - Regional Screening Levels (November 2012); carcs multiplied by 10
NMED WQCC standards - Title 20 Chapter 6, Part 2, - 20.6.2.3101 Standards for Ground Water of 10,000 mg/l TDS Concentration or less

Table 7
Aeration Basin Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	Units	SWMU 1-1 (10-12')	SWMU 1-1 (13-14')	SWMU 1-1 (2-4')	SWMU 1-2 (10-11')	SWMU 1-2 (14-16')	SWMU 1-2 (17-17.25')	SWMU 1-2 (19.5-20')	SWMU 1-2 (6-8')	SWMU 1-3 (10-11')	SWMU 1-3 (11-11.25')	SWMU 1-3 (18.5-19.5')	SWMU 1-3 (19.5-20')
										1210372-002	1210372-003	1210372-001	1210279-002	1210279-003	1210279-004	1210279-005	1210279-001	1210279-009	1210279-010	1210279-011	1210279-012
										10/5/2012	10/5/2012	10/5/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012
Metals (mg/kg)																					
Antimony	3.13E+01	(1)	1.24E+02	(5)	3.05E+02	(9)	3.13E+01	-	mg/Kg	<12.5	<25	<12.5	<4.9996	<4.9997	<5	<5	<5.0001	<5	<5	<5	<5
Arsenic	3.90E+00	(1)	1.77E+01	(4)	6.05E+00	(9)	3.90E+00	-	mg/Kg	<12.5	<25	<12.5	<4.9996	<4.9997	<4.9998	<4.9999	<5.0001	<4.9996	<5.0005	<5.0002	<5.0003
Barium	1.56E+04	(1)	4.35E+03	(5)	1.39E+05	(9)	4.35E+03	-	mg/Kg	300	630	450	220	680	180	1300	39	220	110	270	400
Beryllium	1.56E+02	(1)	1.44E+02	(5)	2.66E+04	(9)	1.44E+02	-	mg/Kg	1.2	<1.5	<0.75	0.74	0.58	0.74	0.77	0.61	0.72	0.63	0.79	0.83
Cadmium	7.03E+01	(1)	2.77E+02	(5)	6.33E+02	(9)	7.03E+01	-	mg/Kg	<0.5	<1	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chromium III	1.17E+05	(1)	4.65E+05	(5)	4.54E+10	(9)	1.17E+05	-	mg/Kg	16	6.8	400	6	6.3	6.9	12	8.1	7.6	4.8	9.3	10
Chromium VI	2.97E+00	(1)	6.31E+01	(4)	3.83E+00	(9)	2.97E+00	-	mg/Kg	16	6.8	400	6	6.3	6.9	12	8.1	7.6	4.8	9.3	10
Cobalt	2.30E+01	(2)	3.00E+02	(6)	9.68E+01	(9)	2.30E+01	-	mg/Kg	7.5	8	8.1	3.3	3.5	3.8	11	3.9	3.6	3.2	5.4	5.7
Cyanide	4.69E+01	(1)	1.86E+02	(5)	1.02E+02	(9)	4.69E+01	-	mg/Kg	<0.3	<0.3	1.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Iron	5.48E+04	(1)	2.17E+05	(5)	2.98E+05	(9)	5.48E+04	-	mg/Kg	23000	8100	16000	11000	12000	12000	17000	12000	11000	10000	16000	16000
Lead	4.00E+02	(1)	8.00E+02	(5)	6.45E+03	(10)	4.00E+02	-	mg/Kg	3.3	<2.5	80	3.9	3.5	4.8	3.9	3.5	3.4	4	4.8	2.8
Manganese	1.86E+03	(1)	4.40E+02	(5)	2.64E+04	(9)	4.40E+02	-	mg/Kg	290	2800	480	310	360	280	1200	230	420	380	510	610
Mercury	1.56E+01	(1)	1.36E+01	(5)	1.51E+01	(9)	1.36E+01	-	mg/Kg	<0.033	<0.033	1.4	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Nickel	1.56E+03	(1)	6.19E+03	(5)	2.20E+04	(9)	1.56E+03	-	mg/Kg	15	8.3	15	5.6	5.7	6.7	16	6	5.7	5	10	12
Selenium	3.91E+02	(1)	1.55E+03	(5)	4.45E+02	(9)	3.91E+02	-	mg/Kg	<12.5	<25	<12.5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Silver	3.91E+02	(1)	1.55E+03	(5)	7.22E+02	(9)	3.91E+02	-	mg/Kg	<1.25	<2.5	<1.25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vanadium	3.91E+02	(1)	1.55E+03	(5)	8.42E+04	(9)	3.91E+02	-	mg/Kg	25	30	20	12	13	12	14	16	15	10	11	10
Zinc	2.35E+04	(1)	9.29E+04	(5)	3.14E+05	(9)	2.35E+04	-	mg/Kg	29	<25	720	13	13	13	30	16	11	10	15	16
Volatile Organic Compounds - (EPA Method 8260) mg/kg																					
1,1,1,2-Tetrachloroethane	2.91E+01	(1)	1.61E+02	(4)	7.59E-01	(9)	7.59E-01	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
1,1,1-Trichloroethane	1.56E+04	(1)	1.48E+04	(5)	1.34E+03	(9)	1.34E+03	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
1,1,2,2-Tetrachloroethane	8.02E+00	(1)	4.35E+01	(4)	9.82E-02	(9)	9.82E-02	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
1,1,2-Trichloroethane	2.81E+00	(1)	1.33E+01	(4)	5.14E-02	(9)	5.14E-02	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
1,1-Dichloroethane	6.45E+01	(1)	3.59E+02	(4)	2.75E+00	(9)	2.75E+00	-	mg/Kg	<1	<0.1	<5	<0.0012	<0.0012	<0.0012	<0.001	<0.1	<0.0012	<0.0011	<0.0013	<0.0012
1,1-Dichloroethene	4.49E+02	(1)	4.32E+02	(5)	5.36E+01	(9)	5.36E+01	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
1,1-Dichloropropene	-	-	-	-	-	-	-	-	mg/Kg	<1	<0.1	<5	<0.0012	<0.0012	<0.0012	<0.001	<0.1	<0.0012	<0.0011	<0.0013	<0.0012
1,2,3-Trichlorobenzene	4.90E+01	(2)	4.90E+02	(6)	6.92E+00	(9)	6.92E+00	-	mg/Kg	<1	<0.1	<5	<0.0012	<0.0012	<0.0012	<0.001	<0.1	<0.0012	<0.0011	<0.0013	<0.0012
1,2,3-Trichloropropane	4.97E-02	(1)	7.23E+00	(5)	1.15E-03	(9)	1.15E-03	-	mg/Kg	<1	<0.1	<5	<0.0012	<0.0012	<0.0012	<0.001	<0.1	<0.0012	<0.0011	<0.0013	<0.0012
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
1,2,4-Trimethylbenzene	6.20E+01	(2)	2.60E+02	(6)	9.68E+00	(9)	9.68E+00	-	mg/Kg	<0.5	<0.05	17	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	0.00132
1,2-Dibromo-3-chloropropane	1.86E+00	(1)	1.08E+00	(4)	5.07E-04	(9)	5.07E-04	-	mg/Kg	<1	<0.1	<5	<0.0012	<0.0012	<0.0012	<0.001	<0.1	<0.0012	<0.0011	<0.0013	<0.0012
1,2-Dibromoethane (EDB)	5.88E-01	(1)	3.22E+00	(4)	7.10E-03	(9)	7.10E-03	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
1,2-Dichloroethane (EDC)	7.89E+00	(1)	4.35E+01	(4)	1.64E-01	(9)	1.64E-01	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
1,2-Dichloropropane	1.52E+01	(1)	2.50E+01	(5)	4.94E-01	(9)	4.94E-01	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
1,3,5-Trimethylbenzene	7.80E+02	(2)	1.00E+04	(6)	5.53E+01	(9)	5.53E+01	-	mg/Kg	<0.5	<0.05	5.8	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
1,3-Dichloropropane	1.60E+03	(2)	2.00E+04	(6)	4.56E+01	(9)	4.56E+01	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	mg/Kg	6.4	<0.2	35	<0.0046	<0.0048	<0.0047	<0.0042	<0.2	<0.0049	<0.0043	<0.0052	<0.0048
2,2-Dichloropropane	-	-	-	-	-	-	-	-	mg/Kg	<1	<0.1	<5	<0.0012	<0.0012	<0.0012	<0.001	<0.1	<0.0012	<0.0011	<0.0013	<0.0012
2-Butanone (MEK)	3.71E+04	(1)	8.43E+04	(5)	5.87E+02	(9)	5.87E+02	-	mg/Kg	<5	<0.5	<25	<0.0116	<0.0121	<0.0116	<0.0104	<0.5	<0.0123	<0.0108	<0.0129	<0.012
2-Chlorotoluene	1.56E+03	(1)	6.19E+03	(5)	2.57E+02	(9)	2.57E+02	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
2-Hexanone	9.38E+02	(1)	9.73E+02	(5)	3.53E+03	(9)	9.38E+02	-	mg/Kg	<5	<0.5	<25	<0.0116	<0.0121	<0.0116	<0.0104	<0.5	<0.0123	<0.0108	<0.0129	<0.012
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	mg/Kg	13	<0.2	48	<0.0046	<0.0048	<0.0047	<0.0042	<0.2	<0.0049	<0.0043	<0.0052	<0.0048
4-Chlorotoluene	1.60E+03	(2)	2.00E+04	(6)	8.30E+01	(9)	8.30E+01	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
4-Isopropyltoluene	-	-	-	-	-	-	-	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
4-Methyl-2-pentanone	5.30E+03	(2)	5.30E+04	(6)	1.06E+02	(9)	1.06E+02	-	mg/Kg	<5	<0.5	<25	<0.0116	<0.0121	<0.0116	<0.0104	<0.5	<0.0123	<0.0108	<0.0129	<0.012

Table 7
Aeration Basin Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	Units	SWMU 1-1 (10-12')	SWMU 1-1 (13-14')	SWMU 1-1 (2-4')	SWMU 1-2 (10-11')	SWMU 1-2 (14-16')	SWMU 1-2 (17-17.25')	SWMU 1-2 (19.5-20')	SWMU 1-2 (6-8')	SWMU 1-3 (10-11')	SWMU 1-3 (11-11.25')	SWMU 1-3 (18.5-19.5')	SWMU 1-3 (19.5-20')
										1210372-002	1210372-003	1210372-001	1210279-002	1210279-003	1210279-004	1210279-005	1210279-001	1210279-009	1210279-010	1210279-011	1210279-012
										10/5/2012	10/5/2012	10/5/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012
Acetone	6.66E+04	(1)	2.21E+05	(5)	1.78E+03	(9)	1.78E+03	-	mg/Kg	<7.5	<0.75	<37.5	0.0135	0.0158	0.0877	0.0127	<0.75	0.019	0.0469	<0.0129	<0.012
Benzene	1.54E+01	(1)	8.47E+01	(4)	7.96E-01	(9)	7.96E-01	-	mg/Kg	<0.5	<0.05	3.2	<0.0012	0.00194	0.00139	0.00395	<0.05	<0.0012	<0.0011	0.00269	0.00855
Bromobenzene	3.00E+02	(2)	1.80E+03	(6)	1.66E+01	(9)	1.66E+01	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
Bromodichloromethane	5.41E+00	(1)	3.01E+01	(4)	1.25E-01	(9)	1.25E-01	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
Bromoform	6.16E+02	(1)	2.42E+03	(4)	2.78E+02	(9)	2.78E+02	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
Bromomethane	1.65E+01	(1)	1.64E+01	(5)	8.86E-01	(9)	8.86E-01	-	mg/Kg	<1.5	<0.15	<7.5	<0.0012	<0.0012	<0.0012	<0.001	<0.15	<0.0012	<0.0011	<0.0013	<0.0012
Carbon disulfide	1.53E+03	(1)	1.58E+03	(5)	1.30E+02	(9)	1.30E+02	-	mg/Kg	<5	<0.5	<25	<0.0116	<0.0121	<0.0116	<0.0104	<0.5	<0.0123	<0.0108	<0.0129	<0.012
Carbon tetrachloride	1.08E+01	(1)	5.98E+01	(4)	7.39E-01	(9)	7.39E-01	-	mg/Kg	<1	<0.1	<5	<0.0012	<0.0012	<0.0012	<0.001	<0.1	<0.0012	<0.0011	<0.0013	<0.0012
Chlorobenzene	3.76E+02	(1)	4.06E+02	(5)	2.27E+01	(9)	2.27E+01	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
Chloroethane	2.98E+04	(1)	2.61E+04	(5)	2.48E+03	(9)	2.48E+03	-	mg/Kg	<1	<0.1	<5	<0.0012	<0.0012	<0.0012	<0.001	<0.1	<0.0012	<0.0011	<0.0013	<0.0012
Chloroform	5.86E+00	(1)	3.27E+01	(4)	2.12E-01	(9)	2.12E-01	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
Chloromethane	2.75E+02	(1)	2.41E+02	(5)	2.03E+01	(9)	2.03E+01	-	mg/Kg	<1.5	<0.15	<7.5	<0.0012	<0.0012	<0.0012	<0.001	<0.15	<0.0012	<0.0011	<0.0013	<0.0012
cis-1,2-DCE	1.56E+02	(1)	6.19E+02	(5)	8.47E+00	(9)	8.47E+00	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
cis-1,3-Dichloropropene	3.37E+01	(1)	1.77E+02	(4)	5.71E-01	(9)	5.71E-01	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
Dibromochloromethane	1.21E+01	(1)	6.24E+01	(4)	1.52E-01	(9)	1.52E-01	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
Dibromomethane	5.16E+01	(1)	2.54E+02	(4)	7.89E-01	(9)	7.89E-01	-	mg/Kg	<1	<0.1	<5	<0.0012	<0.0012	<0.0012	<0.001	<0.1	<0.0012	<0.0011	<0.0013	<0.0012
Dichlorodifluoromethane	1.68E+02	(1)	1.49E+02	(5)	1.71E+02	(9)	1.49E+02	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
Ethylbenzene	6.84E+01	(1)	3.78E+02	(4)	5.98E+00	(9)	5.98E+00	-	mg/Kg	<0.5	<0.05	5.8	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	0.00125
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	mg/Kg	<1	<0.1	<5	<0.0012	<0.0012	<0.0012	<0.001	<0.1	<0.0012	<0.0011	<0.0013	<0.0012
Isopropylbenzene	2.43E+03	(1)	2.81E+03	(5)	3.99E+02	(9)	3.99E+02	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
Methyl tert-butyl ether (MTBE)	9.01E+02	(1)	4.89E+03	(4)	1.11E+01	(9)	1.11E+01	-	mg/Kg	<0.5	<0.05	<2.5	0.00148	0.00518	0.00412	<0.001	<0.05	<0.0012	0.00115	0.00256	<0.0012
Methylene chloride	4.09E+02	(1)	1.12E+03	(5)	1.90E+01	(9)	1.90E+01	-	mg/Kg	<1.5	<0.15	<7.5	<0.0035	<0.0036	<0.0035	<0.0031	<0.15	<0.0037	<0.0033	<0.0039	<0.0036
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	mg/Kg	1.3	<0.1	13	<0.0023	<0.0024	<0.0023	<0.0021	<0.1	<0.0025	<0.0022	<0.0026	<0.0024
n-Butylbenzene	3.90E+03	(2)	5.10E+04	(6)	1.15E+03	(9)	1.15E+03	-	mg/Kg	<1.5	<0.15	<7.5	<0.0012	<0.0012	<0.0012	<0.001	<0.15	<0.0012	<0.0011	<0.0013	<0.0012
n-Propylbenzene	3.40E+03	(2)	2.10E+04	(6)	4.56E+02	(9)	4.56E+02	-	mg/Kg	<0.5	<0.05	2.8	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
sec-Butylbenzene	-	-	-	-	-	-	-	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
Styrene	7.28E+03	(1)	9.99E+03	(5)	6.40E+02	(9)	6.40E+02	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
tert-Butylbenzene	-	-	-	-	-	-	-	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
Tetrachloroethene (PCE)	7.02E+00	(1)	3.66E+01	(4)	1.98E-01	(9)	1.98E-01	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
Toluene	5.27E+03	(1)	1.34E+04	(5)	5.84E+02	(9)	5.84E+02	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	0.00151	<0.0012	0.00333	<0.05	<0.0012	<0.0011	0.00164	0.005
trans-1,2-DCE	2.70E+02	(1)	2.73E+02	(5)	1.24E+01	(9)	1.24E+01	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
Trichloroethene (TCE)	8.77E+00	(1)	7.68E+00	(5)	4.85E-01	(9)	4.85E-01	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
Trichlorofluoromethane	1.41E+03	(1)	1.30E+03	(5)	4.10E+02	(9)	4.10E+02	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
Vinyl chloride	7.28E-01	(1)	2.61E+01	(4)	2.50E-02	(9)	2.50E-02	-	mg/Kg	<0.5	<0.05	<2.5	<0.0012	<0.0012	<0.0012	<0.001	<0.05	<0.0012	<0.0011	<0.0013	<0.0012
Xylenes, Total	8.14E+02	(1)	7.43E+02	(5)	7.21E+01	(9)	7.21E+01	-	mg/Kg	<1	<0.1	24	<0.0023	<0.0024	<0.0023	0.00212	<0.1	<0.0025	<0.0022	<0.0026	0.00344
Semi Volatile Organics - (EPA Method 8270) mg/kg																					
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	mg/Kg	7.9	<0.1987	43	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
2,4,5-Trichlorophenol	6.11E+03	(1)	2.38E+04	(5)	4.78E+03	(9)	4.78E+03	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
2,4,6-Trichlorophenol	6.11E+01	(1)	2.38E+02	(5)	4.78E+01	(9)	4.78E+01	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
2,4-Dichlorophenol	1.83E+02	(1)	7.15E+02	(5)	4.60E+01	(9)	4.60E+01	-	mg/Kg	<0.4016	<0.3975	<2.006	<0.3995	<0.3962	<0.3989	<0.4009	<0.4025	<0.4079	<0.3987	<0.3956	<0.4031
2,4-Dimethylphenol	1.22E+03	(1)	4.76E+03	(5)	3.07E+02	(9)	3.07E+02	-	mg/Kg	<0.3012	<0.2981	<1.5045	<0.2996	<0.2971	<0.2992	<0.3007	<0.3019	<0.3059	<0.299	<0.2967	<0.3023
2,4-Dinitrophenol	1.22E+02	(1)	4.76E+02	(5)	2.91E+01	(9)	2.91E+01	-	mg/Kg	<0.4016	<0.3975	<2.006	<0.3995	<0.3962	<0.3989	<0.4009	<0.4025	<0.4079	<0.3987	<0.3956	<0.4031
2,4-Dinitrotoluene	1.57E+01	(1)	6.18E+01	(4)	1.04E+00	(9)	1.04E+00	-	mg/Kg	<0.502	<0.4969	<2.5075	<0.4993	<0.4952	<0.4987	<0.5012	<0.5032	<0.5099	<0.4983	<0.4946	<0.5039
2,6-Dinitrotoluene	6.11E+01	(1)	2.38E+02	(5)	1.77E+01	(9)	1.77E+01	-	mg/Kg	<0.502	<0.4969	<2.5075	<0.4993	<0.4952	<0.4987	<0.5012	<0.5032	<0.5099	<0.4983	<0.4946	<0.5039

Table 7
Aeration Basin Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	Units	SWMU 1-1 (10-12')	SWMU 1-1 (13-14')	SWMU 1-1 (2-4')	SWMU 1-2 (10-11')	SWMU 1-2 (14-16')	SWMU 1-2 (17-17.25')	SWMU 1-2 (19.5-20')	SWMU 1-2 (6-8')	SWMU 1-3 (10-11')	SWMU 1-3 (11-11.25')	SWMU 1-3 (18.5-19.5')	SWMU 1-3 (19.5-20')
										1210372-002	1210372-003	1210372-001	1210279-002	1210279-003	1210279-004	1210279-005	1210279-001	1210279-009	1210279-010	1210279-011	1210279-012
										10/5/2012	10/5/2012	10/5/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012
2-Chloronaphthalene	6.11E+01	(1)	1.49E+02	(4)	4.01E-01	(9)	4.01E-01	-	mg/Kg	<0.251	<0.2484	<1.2538	<0.2497	<0.2476	<0.2493	<0.2506	<0.2516	<0.2549	<0.2492	<0.2473	<0.2519
2-Chlorophenol	3.91E+02	(1)	1.55E+03	(5)	5.33E+01	(9)	5.33E+01	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	mg/Kg	14	<0.1987	55	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
2-Methylphenol	3.10E+03	(2)	3.10E+04	(6)	2.67E+02	(9)	2.67E+02	-	mg/Kg	<0.502	<0.4969	<2.5075	<0.4993	<0.4952	<0.4987	<0.5012	<0.5032	<0.5099	<0.4983	<0.4946	<0.5039
2-Nitroaniline	6.10E+02	(2)	6.00E+03	(6)	2.86E+01	(9)	2.86E+01	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
2-Nitrophenol	-	-	-	-	-	-	-	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
3,3'-Dichlorobenzidine	1.08E+01	(1)	4.26E+01	(4)	3.41E+00	(9)	3.41E+00	-	mg/Kg	<0.251	<0.2484	<1.2538	<0.2497	<0.2476	<0.2493	<0.2506	<0.2516	<0.2549	<0.2492	<0.2473	<0.2519
3+4-Methylphenol	-	-	-	-	-	-	-	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
3-Nitroaniline	-	-	-	-	-	-	-	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
4,6-Dinitro-2-methylphenol	4.90E+00	(2)	4.90E+01	(6)	9.22E-01	(9)	9.22E-01	-	mg/Kg	<0.502	<0.4969	<2.5075	<0.4993	<0.4952	<0.4987	<0.5012	<0.5032	<0.5099	<0.4983	<0.4946	<0.5039
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
4-Chloro-3-methylphenol	6.10E+03	(2)	6.20E+04	(6)	5.99E+02	(9)	5.99E+02	-	mg/Kg	<0.502	<0.4969	<2.5075	<0.4993	<0.4952	<0.4987	<0.5012	<0.5032	<0.5099	<0.4983	<0.4946	<0.5039
4-Chloroaniline	2.40E+01	(3)	8.60E+01	(7)	5.99E-02	(9)	5.99E-02	-	mg/Kg	<0.502	<0.4969	<2.5075	<0.4993	<0.4952	<0.4987	<0.5012	<0.5032	<0.5099	<0.4983	<0.4946	<0.5039
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
4-Nitroaniline	2.40E+02	(3)	8.60E+02	(7)	6.45E-01	(9)	6.45E-01	-	mg/Kg	<0.4016	<0.3975	<2.006	<0.3995	<0.3962	<0.3989	<0.4009	<0.4025	<0.4079	<0.3987	<0.3956	<0.4031
4-Nitrophenol	-	-	-	-	-	-	-	-	mg/Kg	<0.251	<0.2484	<1.2538	<0.2497	<0.2476	<0.2493	<0.2506	<0.2516	<0.2549	<0.2492	<0.2473	<0.2519
Acenaphthene	3.44E+03	(1)	1.86E+04	(5)	7.79E+03	(9)	3.44E+03	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Acenaphthylene	-	-	-	-	-	-	-	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Aniline	8.50E+02	(3)	3.00E+03	(7)	1.80E+00	(9)	1.80E+00	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Anthracene	1.72E+04	(1)	6.68E+04	(5)	1.25E+05	(9)	1.72E+04	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Azobenzene	5.10E+01	(3)	2.30E+02	(7)	3.69E-01	(9)	3.69E-01	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Benz(a)anthracene	1.48E+00	(1)	2.34E+01	(4)	3.61E+01	(9)	1.48E+00	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Benzo(a)pyrene	1.48E-01	(1)	2.34E+00	(4)	1.20E+01	(9)	1.48E-01	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Benzo(b)fluoranthene	1.48E+00	(1)	2.34E+01	(4)	1.22E+02	(9)	1.48E+00	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Benzo(k)fluoranthene	1.48E+01	(1)	2.34E+02	(4)	1.20E+03	(9)	1.48E+01	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Benzoic acid	2.40E+05	(2)	2.50E+06	(6)	6.45E+03	(9)	6.45E+03	-	mg/Kg	<0.502	<0.4969	<2.5075	<0.4993	<0.4952	<0.4987	<0.5012	<0.5032	<0.5099	<0.4983	<0.4946	<0.5039
Benzyl alcohol	6.10E+03	(2)	6.20E+04	(6)	1.71E+02	(9)	1.71E+02	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Bis(2-chloroethoxy)methane	1.80E+02	(2)	1.80E+03	(6)	5.07E+00	(9)	5.07E+00	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Bis(2-chloroethyl)ether	2.68E+00	(1)	1.42E+01	(4)	1.21E-02	(9)	1.21E-02	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Bis(2-chloroisopropyl)ether	9.15E+01	(1)	4.54E+02	(4)	1.07E+00	(9)	1.07E+00	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Bis(2-ethylhexyl)phthalate	3.47E+02	(1)	1.37E+03	(4)	3.97E+03	(9)	3.47E+02	-	mg/Kg	<0.502	<0.4969	<2.5075	<0.4993	<0.4952	<0.4987	<0.5012	<0.5032	<0.5099	<0.4983	<0.4946	<0.5039
Butyl benzyl phthalate	2.60E+03	(3)	9.10E+03	(7)	9.22E+01	(9)	9.22E+01	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Carbazole	-	-	-	-	-	-	-	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Chrysene	1.48E+02	(1)	2.34E+03	(4)	3.68E+03	(9)	1.48E+02	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Dibenz(a,h)anthracene	1.48E-01	(1)	2.34E+00	(4)	3.90E+01	(9)	1.48E-01	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Dibenzofuran	7.80E+01	(2)	1.00E+03	(6)	5.07E+01	(9)	5.07E+01	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Diethyl phthalate	4.89E+04	(1)	1.91E+05	(5)	4.45E+03	(9)	4.45E+03	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Dimethyl phthalate	6.11E+05	(1)	2.38E+06	(5)	3.71E+04	(9)	3.71E+04	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Di-n-butyl phthalate	6.11E+03	(1)	2.38E+04	(5)	3.21E+03	(9)	3.21E+03	-	mg/Kg	<0.502	<0.4969	<2.5075	<0.4993	<0.4952	<0.4987	<0.5012	<0.5032	<0.5099	<0.4983	<0.4946	<0.5039
Di-n-octyl phthalate	-	-	-	-	-	-	-	-	mg/Kg	<0.251	<0.2484	<1.2538	<0.2497	<0.2476	<0.2493	<0.2506	<0.2516	<0.2549	<0.2492	<0.2473	<0.2519
Fluoranthene	2.29E+03	(1)	8.91E+03	(5)	5.61E+04	(9)	2.29E+03	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Fluorene	2.29E+03	(1)	8.91E+03	(5)	9.36E+03	(9)	2.29E+03	-	mg/Kg	0.68	<0.1987	3.7	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Hexachlorobenzene	3.04E+00	(1)	1.20E+01	(4)	1.83E+00	(9)	1.83E+00	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Hexachlorocyclopentadiene	3.67E+02	(1)	8.11E+02	(5)	2.43E+02	(9)	2.43E+02	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Hexachloroethane	4.28E+01	(1)	1.67E+02	(5)	3.77E+00	(9)	3.77E+00	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Indeno(1,2,3-cd)pyrene	1.48E+00	(1)	2.34E+01	(4)	3.98E+02	(9)	1.48E+00	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Isophorone	5.12E+03	(1)	4.75E+04	(5)	8.84E+01	(9)	8.84E+01	-	mg/Kg	<0.502	<0.4969	<2.5075	<0.4993	<0.4952	<0.4987	<0.5012	<0.5032	<0.5099	<0.4983	<0.4946	<0.5039

Table 7
Aeration Basin Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	Units	SWMU 1-1 (10-12')	SWMU 1-1 (13-14')	SWMU 1-1 (2-4')	SWMU 1-2 (10-11')	SWMU 1-2 (14-16')	SWMU 1-2 (17-17.25')	SWMU 1-2 (19.5-20')	SWMU 1-2 (6-8')	SWMU 1-3 (10-11')	SWMU 1-3 (11-11.25')	SWMU 1-3 (18.5-19.5')	SWMU 1-3 (19.5-20')
										1210372-002	1210372-003	1210372-001	1210279-002	1210279-003	1210279-004	1210279-005	1210279-001	1210279-009	1210279-010	1210279-011	1210279-012
										10/5/2012	10/5/2012	10/5/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012	10/2/2012
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	mg/Kg	1.1	<0.1987	**7.9**	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Nitrobenzene	5.35E+01	(1)	3.00E+02	(4)	2.88E-01	(9)	2.88E-01	-	mg/Kg	<0.502	<0.4969	<2.5075	<0.4993	<0.4952	<0.4987	<0.5012	<0.5032	<0.5099	<0.4983	<0.4946	<0.5039
N-Nitrosodi-n-propylamine	6.90E-01	(3)	2.50E+00	(7)	3.23E-03	(9)	3.23E-03	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
N-Nitrosodiphenylamine	9.93E+02	(1)	3.91E+03	(4)	2.61E+02	(9)	2.61E+02	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Pentachlorophenol	8.94E+00	(1)	3.00E+01	(4)	5.90E+00	(9)	5.90E+00	-	mg/Kg	<0.4016	<0.3975	<2.006	<0.3995	<0.3962	<0.3989	<0.4009	<0.4025	<0.4079	<0.3987	<0.3956	<0.4031
Phenanthrene	1.83E+03	(1)	7.15E+03	(5)	1.32E+04	(9)	1.83E+03	-	mg/Kg	1.5	<0.1987	11	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Phenol	1.83E+04	(1)	6.88E+04	(5)	2.29E+03	(9)	2.29E+03	-	mg/Kg	<0.2008	<0.1987	<1.003	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Pyrene	1.72E+03	(1)	6.68E+03	(5)	4.12E+04	(9)	1.72E+03	-	mg/Kg	<0.2008	<0.1987	1.5	<0.1997	<0.1981	<0.1995	<0.2005	<0.2013	<0.2039	<0.1993	<0.1978	<0.2015
Pyridine	7.80E+01	(2)	1.00E+03	(6)	2.44E+00	(9)	2.44E+00	-	mg/Kg	<0.502	<0.4969	<2.5075	<0.4993	<0.4952	<0.4987	<0.5012	<0.5032	<0.5099	<0.4983	<0.4946	<0.5039
Total Petroleum Hydrocarbons - (EPA Method 8015B) mg/kg																					
Diesel Range Organics (DRO)	1.00E+03	(11)	1.00E+03	(11)	1.00E+03	(11)	-	-	mg/Kg	820	55	**4700**	<10	<10	<10	<10	<10	<10	<10	<10	<10
Gasoline Range Organics (GRO)	-	-	-	-	-	-	-	-	mg/Kg	<25	<5	410	<5	<5	<5	<5	<5	<5	<5	<5	<5
Motor Oil Range Organics (MRO)	3.00E+03	(12)	3.00E+03	(12)	3.00E+03	(12)	-	-	mg/Kg	<510	<51	<5045	<52	<50	<48	<50	<49	<48	<50	<49	<50

-- No screening level or analytical result available

NMED - Risk Assessment Guidance for Site Investigations and Remediation (June 14, 2012)

EPA - Regional Screening Levels (May 2012)

(1) NMED Residential Screening Level

(2) EPA Residential Screening Level

(3) EPA Residential - Screening Levels (May 2012) multiplied by 10 because the constituent is listed as carcinogenic

(4) NMED Industrial Occupational Screening Level

(5) NMED Construction Worker Screening Level

(6) EPA Industrial - Screening Levels (May 2012)

(7) EPA Industrial - Screening Levels (May 2012) multiplied by 10

(8) SoilGW NMED Dilution Attenuation Factor (DAF) = 461

(9) SoilGW Risk-based EPA DAF = 461

(10) SoilGW MCL-based EPA DAF = 461

(11) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "uknown oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(12) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "waste oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(13) Background concentrations to be determined

Bold represents value above Residential Screening Level
yellow highlight represents value above Leachate (DAF) Screening Level
Bold with yellow - value exceeds Residential Screening Level and DAF

Table 7
Aeration Basin Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 1-3 (2-4')	SWMU 1-4 (10-12')	SWMU 1-4 (17-18')	SWMU 1-4 (23-24')	SWMU 1-4 (8-10')	SWMU 1-5 (10-12')	SWMU 1-5 (14-16')	SWMU 1-5 (16-18')	SWMU 1-5 (24-25')	SWMU 1-5 (26-27')	SWMU 1-5 (27-28')	SWMU 1-6 (10-11')	SWMU 1-6 (11-12')
									1210279-008	1210332-007	1210332-002	1210332-003	1210332-006	1210332-012	1210332-013	1210332-014	1210332-015	1210332-008	1210332-009	1210372-016	1210372-017
									10/2/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/4/2012	10/4/2012
Metals (mg/kg)																					
Antimony	3.13E+01	(1)	1.24E+02	(5)	3.05E+02	(9)	3.13E+01	-	<2.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<2.5	<12.5	<12.5	<12.5
Arsenic	3.90E+00	(1)	1.77E+01	(4)	6.05E+00	(9)	3.90E+00	-	<49.9963	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<2.5	<12.5	<12.5	<12.5
Barium	1.56E+04	(1)	4.35E+03	(5)	1.39E+05	(9)	4.35E+03	-	770	360	370	200	590	610	640	690	630	230	380	380	700
Beryllium	1.56E+02	(1)	1.44E+02	(5)	2.66E+04	(9)	1.44E+02	-	0.39	<0.75	<0.75	1.1	<0.75	<0.75	<0.75	<0.75	<0.75	0.3	1.1	<0.75	0.96
Cadmium	7.03E+01	(1)	2.77E+02	(5)	6.33E+02	(9)	7.03E+01	-	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.5	<0.5
Chromium III	1.17E+05	(1)	4.65E+05	(5)	4.54E+10	(9)	1.17E+05	-	3.8	3.7	7.9	14	7.9	11	11	7.9	7.7	5.1	15	7.2	14
Chromium VI	2.97E+00	(1)	6.31E+01	(4)	3.83E+00	(9)	2.97E+00	-	3.8	3.7	7.9	14	7.9	11	11	7.9	7.7	5.1	15	7.2	14
Cobalt	2.30E+01	(2)	3.00E+02	(6)	9.68E+01	(9)	2.30E+01	-	2.4	2	3.9	5.9	4	3.3	3.9	3.7	3.5	2.1	7.8	3.8	6.2
Cyanide	4.69E+01	(1)	1.86E+02	(5)	1.02E+02	(9)	4.69E+01	-	<0.3	<0.3	1.6	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Iron	5.48E+04	(1)	2.17E+05	(5)	2.98E+05	(9)	5.48E+04	-	4800	5300	10000	18000	11000	9200	11000	15000	8700	5900	17000	11000	18000
Lead	4.00E+02	(1)	8.00E+02	(5)	6.45E+03	(10)	4.00E+02	-	<0.25	3.1	2.7	2.1	4.2	3.9	4.4	7.7	3.5	0.57	<1.25	3.6	<1.25
Manganese	1.86E+03	(1)	4.40E+02	(5)	2.64E+04	(9)	4.40E+02	-	340	550	570	340	720	1300	1200	1400	1200	200	640	750	480
Mercury	1.56E+01	(1)	1.36E+01	(5)	1.51E+01	(9)	1.36E+01	-	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033
Nickel	1.56E+03	(1)	6.19E+03	(5)	2.20E+04	(9)	1.56E+03	-	3.8	2.9	6	12	6.3	4.5	5.9	5.1	4.9	3.5	12	5.5	12
Selenium	3.91E+02	(1)	1.55E+03	(5)	4.45E+02	(9)	3.91E+02	-	<2.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<2.5	<12.5	<12.5	<12.5
Silver	3.91E+02	(1)	1.55E+03	(5)	7.22E+02	(9)	3.91E+02	-	<0.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<0.25	<1.25	<1.25	<1.25
Vanadium	3.91E+02	(1)	1.55E+03	(5)	8.42E+04	(9)	3.91E+02	-	11	<12.5	17	15	16	15	19	34	14	8.6	22	16	16
Zinc	2.35E+04	(1)	9.29E+04	(5)	3.14E+05	(9)	2.35E+04	-	9.1	<12.5	17	26	16	<12.5	14	<12.5	<12.5	8.5	31	13	25
Volatile Organic Compounds - (EPA Method 8260) mg/kg																					
1,1,1,2-Tetrachloroethane	2.91E+01	(1)	1.61E+02	(4)	7.59E-01	(9)	7.59E-01	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,1,1-Trichloroethane	1.56E+04	(1)	1.48E+04	(5)	1.34E+03	(9)	1.34E+03	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,1,2,2-Tetrachloroethane	8.02E+00	(1)	4.35E+01	(4)	9.82E-02	(9)	9.82E-02	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,1,2-Trichloroethane	2.81E+00	(1)	1.33E+01	(4)	5.14E-02	(9)	5.14E-02	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,1-Dichloroethane	6.45E+01	(1)	3.59E+02	(4)	2.75E+00	(9)	2.75E+00	-	<0.001	<0.0011	<0.1	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,1-Dichloroethene	4.49E+02	(1)	4.32E+02	(5)	5.36E+01	(9)	5.36E+01	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,1-Dichloropropene	-	-	-	-	-	-	-	-	<0.001	<0.0011	<0.1	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,2,3-Trichlorobenzene	4.90E+01	(2)	4.90E+02	(6)	6.92E+00	(9)	6.92E+00	-	<0.001	<0.0011	<0.1	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,2,3-Trichloropropane	4.97E-02	(1)	7.23E+00	(5)	1.15E-03	(9)	1.15E-03	-	<0.001	<0.0011	<0.1	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,2,4-Trimethylbenzene	6.20E+01	(2)	2.60E+02	(6)	9.68E+00	(9)	9.68E+00	-	0.00128	<0.0011	0.25	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,2-Dibromo-3-chloropropane	1.86E+00	(1)	1.08E+00	(4)	5.07E-04	(9)	5.07E-04	-	<0.001	<0.0011	<0.1	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,2-Dibromoethane (EDB)	5.88E-01	(1)	3.22E+00	(4)	7.10E-03	(9)	7.10E-03	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,2-Dichloroethane (EDC)	7.89E+00	(1)	4.35E+01	(4)	1.64E-01	(9)	1.64E-01	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,2-Dichloropropane	1.52E+01	(1)	2.50E+01	(5)	4.94E-01	(9)	4.94E-01	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,3,5-Trimethylbenzene	7.80E+02	(2)	1.00E+04	(6)	5.53E+01	(9)	5.53E+01	-	<0.001	<0.0011	0.073	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,3-Dichloropropane	1.60E+03	(2)	2.00E+04	(6)	4.56E+01	(9)	4.56E+01	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	<0.0042	<0.0045	0.55	<0.0037	<0.0036	<0.0036	<0.0038	<0.0042	<0.0041	<0.004	<0.004	<0.0043	<0.0055
2,2-Dichloropropane	-	-	-	-	-	-	-	-	<0.001	<0.0011	<0.1	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
2-Butanone (MEK)	3.71E+04	(1)	8.43E+04	(5)	5.87E+02	(9)	5.87E+02	-	<0.0105	<0.0113	<0.5	<0.0092	<0.0091	0.0142	0.0179	<0.0104	<0.0104	<0.0101	<0.01	<0.0107	<0.0136
2-Chlorotoluene	1.56E+03	(1)	6.19E+03	(5)	2.57E+02	(9)	2.57E+02	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
2-Hexanone	9.38E+02	(1)	9.73E+02	(5)	3.53E+03	(9)	9.38E+02	-	<0.0105	<0.0113	<0.5	<0.0092	<0.0091	<0.0091	<0.0095	<0.0104	<0.0104	<0.0101	<0.01	<0.0107	<0.0136
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	<0.0042	<0.0045	0.93	<0.0037	<0.0036	<0.0036	<0.0038	<0.0042	<0.0041	<0.004	<0.004	<0.0043	<0.0055
4-Chlorotoluene	1.60E+03	(2)	2.00E+04	(6)	8.30E+01	(9)	8.30E+01	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
4-Isopropyltoluene	-	-	-	-	-	-	-	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
4-Methyl-2-pentanone	5.30E+03	(2)	5.30E+04	(6)	1.06E+02	(9)	1.06E+02	-	<0.0105	<0.0113	<0.5	<0.0092	<0.0091	<0.0091	<0.0095	<0.0104	<0.0104	<0.0101	<0.01	<0.0107	<0.0136

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

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 1-3 (2-4')	SWMU 1-4 (10-12')	SWMU 1-4 (17-18')	SWMU 1-4 (23-24')	SWMU 1-4 (8-10')	SWMU 1-5 (10-12')	SWMU 1-5 (14-16')	SWMU 1-5 (16-18')	SWMU 1-5 (24-25')	SWMU 1-5 (26-27')	SWMU 1-5 (27-28')	SWMU 1-6 (10-11')	SWMU 1-6 (11-12')
									1210279-008	1210332-007	1210332-002	1210332-003	1210332-006	1210332-012	1210332-013	1210332-014	1210332-015	1210332-008	1210332-009	1210372-016	1210372-017
									10/2/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/4/2012	10/4/2012
Acetone	6.66E+04	(1)	2.21E+05	(5)	1.78E+03	(9)	1.78E+03	-	0.0418	0.0153	<0.75	0.0173	0.0314	0.0614	0.0891	0.0379	0.0485	0.0233	<0.01	0.0539	<0.0136
Benzene	1.54E+01	(1)	8.47E+01	(4)	7.96E-01	(9)	7.96E-01	-	<0.001	<0.0011	<0.05	0.00566	<0.0009	<0.0009	<0.0009	<0.001	0.00403	0.00594	0.00158	<0.0011	<0.0014
Bromobenzene	3.00E+02	(2)	1.80E+03	(6)	1.66E+01	(9)	1.66E+01	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Bromodichloromethane	5.41E+00	(1)	3.01E+01	(4)	1.25E-01	(9)	1.25E-01	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Bromoform	6.16E+02	(1)	2.42E+03	(4)	2.78E+02	(9)	2.78E+02	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Bromomethane	1.65E+01	(1)	1.64E+01	(5)	8.86E-01	(9)	8.86E-01	-	<0.001	<0.0011	<0.15	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Carbon disulfide	1.53E+03	(1)	1.58E+03	(5)	1.30E+02	(9)	1.30E+02	-	<0.0105	<0.0113	<0.5	<0.0092	<0.0091	<0.0091	<0.0095	<0.0104	<0.0104	<0.0101	<0.01	<0.0107	<0.0136
Carbon tetrachloride	1.08E+01	(1)	5.98E+01	(4)	7.39E-01	(9)	7.39E-01	-	<0.001	<0.0011	<0.1	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Chlorobenzene	3.76E+02	(1)	4.06E+02	(5)	2.27E+01	(9)	2.27E+01	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Chloroethane	2.98E+04	(1)	2.61E+04	(5)	2.48E+03	(9)	2.48E+03	-	<0.001	<0.0011	<0.1	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Chloroform	5.86E+00	(1)	3.27E+01	(4)	2.12E-01	(9)	2.12E-01	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Chloromethane	2.75E+02	(1)	2.41E+02	(5)	2.03E+01	(9)	2.03E+01	-	<0.001	<0.0011	<0.15	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
cis-1,2-DCE	1.56E+02	(1)	6.19E+02	(5)	8.47E+00	(9)	8.47E+00	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
cis-1,3-Dichloropropene	3.37E+01	(1)	1.77E+02	(4)	5.71E-01	(9)	5.71E-01	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Dibromochloromethane	1.21E+01	(1)	6.24E+01	(4)	1.52E-01	(9)	1.52E-01	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Dibromomethane	5.16E+01	(1)	2.54E+02	(4)	7.89E-01	(9)	7.89E-01	-	<0.001	<0.0011	<0.1	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Dichlorodifluoromethane	1.68E+02	(1)	1.49E+02	(5)	1.71E+02	(9)	1.49E+02	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Ethylbenzene	6.84E+01	(1)	3.78E+02	(4)	5.98E+00	(9)	5.98E+00	-	<0.001	<0.0011	0.05	0.00125	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<0.001	<0.0011	<0.1	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Isopropylbenzene	2.43E+03	(1)	2.81E+03	(5)	3.99E+02	(9)	3.99E+02	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Methyl tert-butyl ether (MTBE)	9.01E+02	(1)	4.89E+03	(4)	1.11E+01	(9)	1.11E+01	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Methylene chloride	4.09E+02	(1)	1.12E+03	(5)	1.90E+01	(9)	1.90E+01	-	<0.0031	<0.0034	<0.15	<0.0027	<0.0027	<0.0027	<0.0028	<0.0031	<0.0031	<0.003	<0.003	<0.0032	<0.0041
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	<0.0021	<0.0023	0.4	<0.0018	<0.0018	<0.0018	<0.0019	<0.0021	<0.0021	<0.002	<0.002	<0.0021	<0.0027
n-Butylbenzene	3.90E+03	(2)	5.10E+04	(6)	1.15E+03	(9)	1.15E+03	-	<0.001	<0.0011	<0.15	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
n-Propylbenzene	3.40E+03	(2)	2.10E+04	(6)	4.56E+02	(9)	4.56E+02	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
sec-Butylbenzene	-	-	-	-	-	-	-	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Styrene	7.28E+03	(1)	9.99E+03	(5)	6.40E+02	(9)	6.40E+02	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
tert-Butylbenzene	-	-	-	-	-	-	-	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Tetrachloroethene (PCE)	7.02E+00	(1)	3.66E+01	(4)	1.98E-01	(9)	1.98E-01	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Toluene	5.27E+03	(1)	1.34E+04	(5)	5.84E+02	(9)	5.84E+02	-	0.00187	<0.0011	<0.05	0.00275	<0.0009	<0.0009	<0.0009	<0.001	0.0091	0.00831	0.00101	<0.0011	<0.0014
trans-1,2-DCE	2.70E+02	(1)	2.73E+02	(5)	1.24E+01	(9)	1.24E+01	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Trichloroethene (TCE)	8.77E+00	(1)	7.68E+00	(5)	4.85E-01	(9)	4.85E-01	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Trichlorofluoromethane	1.41E+03	(1)	1.30E+03	(5)	4.10E+02	(9)	4.10E+02	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Vinyl chloride	7.28E-01	(1)	2.61E+01	(4)	2.50E-02	(9)	2.50E-02	-	<0.001	<0.0011	<0.05	<0.0009	<0.0009	<0.0009	<0.0009	<0.001	<0.001	<0.001	<0.001	<0.0011	<0.0014
Xylenes, Total	8.14E+02	(1)	7.43E+02	(5)	7.21E+01	(9)	7.21E+01	-	<0.0021	<0.0023	0.35	0.00218	<0.0018	<0.0018	<0.0019	<0.0021	<0.0021	<0.002	<0.002	<0.0021	<0.0027
Semi Volatile Organics - (EPA Method 8270) mg/kg																					
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
2,4,5-Trichlorophenol	6.11E+03	(1)	2.38E+04	(5)	4.78E+03	(9)	4.78E+03	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
2,4,6-Trichlorophenol	6.11E+01	(1)	2.38E+02	(5)	4.78E+01	(9)	4.78E+01	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
2,4-Dichlorophenol	1.83E+02	(1)	7.15E+02	(5)	4.60E+01	(9)	4.60E+01	-	<0.4013	<0.8	<0.4012	<0.3971	<0.4013	<0.4038	<0.4	<0.3985	<0.4013	<0.7895	<0.3981	<0.3997	<0.4013
2,4-Dimethylphenol	1.22E+03	(1)	4.76E+03	(5)	3.07E+02	(9)	3.07E+02	-	<0.301	<0.6	0.64	<0.2978	<0.301	<0.3028	<0.3	<0.2989	<0.301	<0.5921	<0.2986	<0.2998	<0.301
2,4-Dinitrophenol	1.22E+02	(1)	4.76E+02	(5)	2.91E+01	(9)	2.91E+01	-	<0.4013	<0.8	<0.4012	<0.3971	<0.4013	<0.4038	<0.4	<0.3985	<0.4013	<0.7895	<0.3981	<0.3997	<0.4013
2,4-Dinitrotoluene	1.57E+01	(1)	6.18E+01	(4)	1.04E+00	(9)	1.04E+00	-	<0.5017	<1	<0.5015	<0.4964	<0.5017	<0.5047	<0.5	<0.4982	<0.5017	<0.9868	<0.4977	<0.4997	<0.5017
2,6-Dinitrotoluene	6.11E+01	(1)	2.38E+02	(5)	1.77E+01	(9)	1.77E+01	-	<0.5017	<1	<0.5015	<0.4964	<0.5017	<0.5047	<0.5	<0.4982	<0.5017	<0.9868	<0.4977	<0.4997	<0.5017

Table 7
Aeration Basin Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 1-3 (2-4')	SWMU 1-4 (10-12')	SWMU 1-4 (17-18')	SWMU 1-4 (23-24')	SWMU 1-4 (8-10')	SWMU 1-5 (10-12')	SWMU 1-5 (14-16')	SWMU 1-5 (16-18')	SWMU 1-5 (24-25')	SWMU 1-5 (26-27')	SWMU 1-5 (27-28')	SWMU 1-6 (10-11')	SWMU 1-6 (11-12')
									1210279-008	1210332-007	1210332-002	1210332-003	1210332-006	1210332-012	1210332-013	1210332-014	1210332-015	1210332-008	1210332-009	1210372-016	1210372-017
									10/2/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/4/2012	10/4/2012
2-Chloronaphthalene	6.11E+01	(1)	1.49E+02	(4)	4.01E-01	(9)	4.01E-01	-	<0.2508	<0.5	<0.2508	<0.2482	<0.2508	<0.2524	<0.25	<0.2491	<0.2508	<0.4934	<0.2488	<0.2498	<0.2508
2-Chlorophenol	3.91E+02	(1)	1.55E+03	(5)	5.33E+01	(9)	5.33E+01	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	<0.2007	<0.4	0.27	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
2-Methylphenol	3.10E+03	(2)	3.10E+04	(6)	2.67E+02	(9)	2.67E+02	-	<0.5017	<1	<0.5015	<0.4964	<0.5017	<0.5047	<0.5	<0.4982	<0.5017	<0.9868	<0.4977	<0.4997	<0.5017
2-Nitroaniline	6.10E+02	(2)	6.00E+03	(6)	2.86E+01	(9)	2.86E+01	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
2-Nitrophenol	-	-	-	-	-	-	-	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
3,3'-Dichlorobenzidine	1.08E+01	(1)	4.26E+01	(4)	3.41E+00	(9)	3.41E+00	-	<0.2508	<0.5	<0.2508	<0.2482	<0.2508	<0.2524	<0.25	<0.2491	<0.2508	<0.4934	<0.2488	<0.2498	<0.2508
3+4-Methylphenol	-	-	-	-	-	-	-	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
3-Nitroaniline	-	-	-	-	-	-	-	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
4,6-Dinitro-2-methylphenol	4.90E+00	(2)	4.90E+01	(6)	9.22E-01	(9)	9.22E-01	-	<0.5017	<1	<0.5015	<0.4964	<0.5017	<0.5047	<0.5	<0.4982	<0.5017	<0.9868	<0.4977	<0.4997	<0.5017
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
4-Chloro-3-methylphenol	6.10E+03	(2)	6.20E+04	(6)	5.99E+02	(9)	5.99E+02	-	<0.5017	<1	<0.5015	<0.4964	<0.5017	<0.5047	<0.5	<0.4982	<0.5017	<0.9868	<0.4977	<0.4997	<0.5017
4-Chloroaniline	2.40E+01	(3)	8.60E+01	(7)	5.99E-02	(9)	5.99E-02	-	<0.5017	<1	<0.5015	<0.4964	<0.5017	<0.5047	<0.5	<0.4982	<0.5017	<0.9868	<0.4977	<0.4997	<0.5017
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
4-Nitroaniline	2.40E+02	(3)	8.60E+02	(7)	6.45E-01	(9)	6.45E-01	-	<0.4013	<0.8	<0.4012	<0.3971	<0.4013	<0.4038	<0.4	<0.3985	<0.4013	<0.7895	<0.3981	<0.3997	<0.4013
4-Nitrophenol	-	-	-	-	-	-	-	-	<0.2508	<0.5	<0.2508	<0.2482	<0.2508	<0.2524	<0.25	<0.2491	<0.2508	<0.4934	<0.2488	<0.2498	<0.2508
Acenaphthene	3.44E+03	(1)	1.86E+04	(5)	7.79E+03	(9)	3.44E+03	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Acenaphthylene	-	-	-	-	-	-	-	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Aniline	8.50E+02	(3)	3.00E+03	(7)	1.80E+00	(9)	1.80E+00	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Anthracene	1.72E+04	(1)	6.68E+04	(5)	1.25E+05	(9)	1.72E+04	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Azobenzene	5.10E+01	(3)	2.30E+02	(7)	3.69E-01	(9)	3.69E-01	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Benz(a)anthracene	1.48E+00	(1)	2.34E+01	(4)	3.61E+01	(9)	1.48E+00	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Benzo(a)pyrene	1.48E-01	(1)	2.34E+00	(4)	1.20E+01	(9)	1.48E-01	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Benzo(b)fluoranthene	1.48E+00	(1)	2.34E+01	(4)	1.22E+02	(9)	1.48E+00	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Benzo(k)fluoranthene	1.48E+01	(1)	2.34E+02	(4)	1.20E+03	(9)	1.48E+01	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Benzoic acid	2.40E+05	(2)	2.50E+06	(6)	6.45E+03	(9)	6.45E+03	-	<0.5017	<1	<0.5015	<0.4964	<0.5017	<0.5047	<0.5	<0.4982	<0.5017	<0.9868	<0.4977	<0.4997	<0.5017
Benzyl alcohol	6.10E+03	(2)	6.20E+04	(6)	1.71E+02	(9)	1.71E+02	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Bis(2-chloroethoxy)methane	1.80E+02	(2)	1.80E+03	(6)	5.07E+00	(9)	5.07E+00	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Bis(2-chloroethyl)ether	2.68E+00	(1)	1.42E+01	(4)	1.21E-02	(9)	1.21E-02	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Bis(2-chloroisopropyl)ether	9.15E+01	(1)	4.54E+02	(4)	1.07E+00	(9)	1.07E+00	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Bis(2-ethylhexyl)phthalate	3.47E+02	(1)	1.37E+03	(4)	3.97E+03	(9)	3.47E+02	-	<0.5017	<1	<0.5015	<0.4964	<0.5017	<0.5047	<0.5	<0.4982	<0.5017	<0.9868	<0.4977	<0.4997	<0.5017
Butyl benzyl phthalate	2.60E+03	(3)	9.10E+03	(7)	9.22E+01	(9)	9.22E+01	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Carbazole	-	-	-	-	-	-	-	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Chrysene	1.48E+02	(1)	2.34E+03	(4)	3.68E+03	(9)	1.48E+02	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Dibenz(a,h)anthracene	1.48E-01	(1)	2.34E+00	(4)	3.90E+01	(9)	1.48E-01	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Dibenzofuran	7.80E+01	(2)	1.00E+03	(6)	5.07E+01	(9)	5.07E+01	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Diethyl phthalate	4.89E+04	(1)	1.91E+05	(5)	4.45E+03	(9)	4.45E+03	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Dimethyl phthalate	6.11E+05	(1)	2.38E+06	(5)	3.71E+04	(9)	3.71E+04	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Di-n-butyl phthalate	6.11E+03	(1)	2.38E+04	(5)	3.21E+03	(9)	3.21E+03	-	<0.5017	<1	<0.5015	<0.4964	<0.5017	<0.5047	<0.5	<0.4982	<0.5017	<0.9868	<0.4977	<0.4997	<0.5017
Di-n-octyl phthalate	-	-	-	-	-	-	-	-	<0.2508	<0.5	<0.2508	<0.2482	<0.2508	<0.2524	<0.25	<0.2491	<0.2508	<0.4934	<0.2488	<0.2498	<0.2508
Fluoranthene	2.29E+03	(1)	8.91E+03	(5)	5.61E+04	(9)	2.29E+03	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Fluorene	2.29E+03	(1)	8.91E+03	(5)	9.36E+03	(9)	2.29E+03	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Hexachlorobenzene	3.04E+00	(1)	1.20E+01	(4)	1.83E+00	(9)	1.83E+00	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Hexachlorocyclopentadiene	3.67E+02	(1)	8.11E+02	(5)	2.43E+02	(9)	2.43E+02	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Hexachloroethane	4.28E+01	(1)	1.67E+02	(5)	3.77E+00	(9)	3.77E+00	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Indeno(1,2,3-cd)pyrene	1.48E+00	(1)	2.34E+01	(4)	3.98E+02	(9)	1.48E+00	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Isophorone	5.12E+03	(1)	4.75E+04	(5)	8.84E+01	(9)	8.84E+01	-	<0.5017	<1	<0.5015	<0.4964	<0.5017	<0.5047	<0.5	<0.4982	<0.5017	<0.9868	<0.4977	<0.4997	<0.5017

Table 7
Aeration Basin Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 1-3 (2-4')	SWMU 1-4 (10-12')	SWMU 1-4 (17-18')	SWMU 1-4 (23-24')	SWMU 1-4 (8-10')	SWMU 1-5 (10-12')	SWMU 1-5 (14-16')	SWMU 1-5 (16-18')	SWMU 1-5 (24-25')	SWMU 1-5 (26-27')	SWMU 1-5 (27-28')	SWMU 1-6 (10-11')	SWMU 1-6 (11-12')
									1210279-008	1210332-007	1210332-002	1210332-003	1210332-006	1210332-012	1210332-013	1210332-014	1210332-015	1210332-008	1210332-009	1210372-016	1210372-017
									10/2/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/3/2012	10/4/2012	10/4/2012
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Nitrobenzene	5.35E+01	(1)	3.00E+02	(4)	2.88E-01	(9)	2.88E-01	-	<0.5017	<1	<0.5015	<0.4964	<0.5017	<0.5047	<0.5	<0.4982	<0.5017	<0.9868	<0.4977	<0.4997	<0.5017
N-Nitrosodi-n-propylamine	6.90E-01	(3)	2.50E+00	(7)	3.23E-03	(9)	3.23E-03	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
N-Nitrosodiphenylamine	9.93E+02	(1)	3.91E+03	(4)	2.61E+02	(9)	2.61E+02	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Pentachlorophenol	8.94E+00	(1)	3.00E+01	(4)	5.90E+00	(9)	5.90E+00	-	<0.4013	<0.8	<0.4012	<0.3971	<0.4013	<0.4038	<0.4	<0.3985	<0.4013	<0.7895	<0.3981	<0.3997	<0.4013
Phenanthrene	1.83E+03	(1)	7.15E+03	(5)	1.32E+04	(9)	1.83E+03	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Phenol	1.83E+04	(1)	6.88E+04	(5)	2.29E+03	(9)	2.29E+03	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Pyrene	1.72E+03	(1)	6.68E+03	(5)	4.12E+04	(9)	1.72E+03	-	<0.2007	<0.4	<0.2006	<0.1985	<0.2007	<0.2019	<0.2	<0.1993	<0.2007	<0.3947	<0.1991	<0.1999	<0.2007
Pyridine	7.80E+01	(2)	1.00E+03	(6)	2.44E+00	(9)	2.44E+00	-	<0.5017	<1	<0.5015	<0.4964	<0.5017	<0.5047	<0.5	<0.4982	<0.5017	<0.9868	<0.4977	<0.4997	<0.5017
Total Petroleum Hydrocarbons - (EPA Method 8015B) mg/kg																					
Diesel Range Organics (DRO)	1.00E+03	(11)	1.00E+03	(11)	1.00E+03	(11)	-	-	<10	<16	<10	<10	<10	<10	<10	<10	<10	<12	<10	<10	<10
Gasoline Range Organics (GRO)	-	-	-	-	-	-	-	-	<5	<5	13	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Motor Oil Range Organics (MRO)	3.00E+03	(12)	3.00E+03	(12)	3.00E+03	(12)	-	-	<51	<82	<51	<48	<50	<49	<48	<50	<50	<60	<50	<50	<50

-- No screening level or analytical result available

NMED - Risk Assessment Guidance for Site Investigations and Remediation (June 14, 2012)

EPA - Regional Screening Levels (May 2012)

(1) NMED Residential Screening Level

(2) EPA Residential Screening Level

(3) EPA Residential - Screening Levels (May 2012) multiplied by 10 because the constituent is listed as carcinogenic

(4) NMED Industrial Occupational Screening Level

(5) NMED Construction Worker Screening Level

(6) EPA Industrial - Screening Levels (May 2012)

(7) EPA Industrial - Screening Levels (May 2012) multiplied by 10

(8) SoilGW NMED Dilution Attenuation Factor (DAF) = 461

(9) SoilGW Risk-based EPA DAF = 461

(10) SoilGW MCL-based EPA DAF = 461

(11) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "uknown oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(12) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "waste oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(13) Background concentrations to be determined

Bold represents value above Residential Screening Level
yellow highlight represents value above Leachate (DAF) Screening Level
Bold with yellow - value exceeds Residential Screening Level and DAF

Table 7
Aeration Basin Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 1-6 (2-4')	SWMU 1-6 (4-6')	SWMU 1-6 (7.5-8')	SWMU 1-7 (12-14')	SWMU 1-7 (14-16')	SWMU 1-7 (16-18')	SWMU 1-8 (10-12')	SWMU 1-8 (12-14')	SWMU 1-8 (16-18')	SWMU 1-8 (19-20')	SWMU 1-8 (4-6')	SWMU 1-9 (0-0.5')	SWMU 1-9 (1.5-2')
									1210372-020	1210372-022	1210372-023	1210372-018	1210372-019	1210372-015	1210372-007	1210372-008	1210372-009	1210372-005	1210372-006	1210811-001	1210811-002
									10/4/2012	10/4/2012	10/4/2012	10/4/2012	10/4/2012	10/4/2012	10/5/2012	10/5/2012	10/5/2012	10/5/2012	10/5/2012	10/15/2012	10/15/2012
Metals (mg/kg)																					
Antimony	3.13E+01	(1)	1.24E+02	(5)	3.05E+02	(9)	3.13E+01	-	<25	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<4.9999	<5.0001
Arsenic	3.90E+00	(1)	1.77E+01	(4)	6.05E+00	(9)	3.90E+00	-	<25	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<4.9999	<5.0001
Barium	1.56E+04	(1)	4.35E+03	(5)	1.39E+05	(9)	4.35E+03	-	660	870	110	87	290	330	620	370	550	300	540	620	200
Beryllium	1.56E+02	(1)	1.44E+02	(5)	2.66E+04	(9)	1.44E+02	-	<1.5	<0.75	0.83	1.1	0.95	1.1	<0.75	<0.75	<0.75	0.95	<0.75	0.71	0.84
Cadmium	7.03E+01	(1)	2.77E+02	(5)	6.33E+02	(9)	7.03E+01	-	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2
Chromium III	1.17E+05	(1)	4.65E+05	(5)	4.54E+10	(9)	1.17E+05	-	6.1	7	8.3	12	11	15	21	10	6.9	14	5.3	24	8.7
Chromium VI	2.97E+00	(1)	6.31E+01	(4)	3.83E+00	(9)	2.97E+00	-	6.1	7	8.3	12	11	15	21	10	6.9	14	5.3	24	8.7
Cobalt	2.30E+01	(2)	3.00E+02	(6)	9.68E+01	(9)	2.30E+01	-	3.5	5.7	4.1	5.4	6	6.4	6.6	4.1	4.4	8.2	3	5	4.3
Cyanide	4.69E+01	(1)	1.86E+02	(5)	1.02E+02	(9)	4.69E+01	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.61	0.4	<0.3	<0.3	<0.3	1.4	<0.285
Iron	5.48E+04	(1)	2.17E+05	(5)	2.98E+05	(9)	5.48E+04	-	9600	9500	13000	16000	15000	22000	15000	8000	11000	19000	7900	12000	12000
Lead	4.00E+02	(1)	8.00E+02	(5)	6.45E+03	(10)	4.00E+02	-	5.4	5.6	4.1	4	3.3	1.7	8.2	2	2.8	<1.25	3.4	7	2.7
Manganese	1.86E+03	(1)	4.40E+02	(5)	2.64E+04	(9)	4.40E+02	-	1000	1100	390	360	790	510	810	540	740	300	390	600	300
Mercury	1.56E+01	(1)	1.36E+01	(5)	1.51E+01	(9)	1.36E+01	-	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	0.16	0.044	<0.033	<0.033	<0.033	0.18	<0.033
Nickel	1.56E+03	(1)	6.19E+03	(5)	2.20E+04	(9)	1.56E+03	-	<5	5.2	6.7	9.3	9.7	13	16	6.8	6.1	12	4.5	15	7.1
Selenium	3.91E+02	(1)	1.55E+03	(5)	4.45E+02	(9)	3.91E+02	-	<25	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<4.9999	<5.0001
Silver	3.91E+02	(1)	1.55E+03	(5)	7.22E+02	(9)	3.91E+02	-	<2.5	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<0.5	<0.5
Vanadium	3.91E+02	(1)	1.55E+03	(5)	8.42E+04	(9)	3.91E+02	-	<25	16	14	20	16	28	26	15	16	26	19	21	16
Zinc	2.35E+04	(1)	9.29E+04	(5)	3.14E+05	(9)	2.35E+04	-	<25	15	14	18	18	25	60	18	14	29	<12.5	53	14
Volatile Organic Compounds - (EPA Method 8260) mg/kg																					
1,1,1,2-Tetrachloroethane	2.91E+01	(1)	1.61E+02	(4)	7.59E-01	(9)	7.59E-01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1,1,1-Trichloroethane	1.56E+04	(1)	1.48E+04	(5)	1.34E+03	(9)	1.34E+03	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1,1,2,2-Tetrachloroethane	8.02E+00	(1)	4.35E+01	(4)	9.82E-02	(9)	9.82E-02	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1,1,2-Trichloroethane	2.81E+00	(1)	1.33E+01	(4)	5.14E-02	(9)	5.14E-02	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1,1-Dichloroethane	6.45E+01	(1)	3.59E+02	(4)	2.75E+00	(9)	2.75E+00	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.1	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1,1-Dichloroethene	4.49E+02	(1)	4.32E+02	(5)	5.36E+01	(9)	5.36E+01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1,1-Dichloropropene	-	-	-	-	-	-	-	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.1	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1,2,3-Trichlorobenzene	4.90E+01	(2)	4.90E+02	(6)	6.92E+00	(9)	6.92E+00	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.1	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1,2,3-Trichloropropane	4.97E-02	(1)	7.23E+00	(5)	1.15E-03	(9)	1.15E-03	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.1	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1,2,4-Trimethylbenzene	6.20E+01	(2)	2.60E+02	(6)	9.68E+00	(9)	9.68E+00	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	0.00358	<0.05	<0.0011	<0.0011	0.0102	<0.0008	<0.0008
1,2-Dibromo-3-chloropropane	1.86E+00	(1)	1.08E+00	(4)	5.07E-04	(9)	5.07E-04	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.1	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1,2-Dibromoethane (EDB)	5.88E-01	(1)	3.22E+00	(4)	7.10E-03	(9)	7.10E-03	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1,2-Dichloroethane (EDC)	7.89E+00	(1)	4.35E+01	(4)	1.64E-01	(9)	1.64E-01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1,2-Dichloropropane	1.52E+01	(1)	2.50E+01	(5)	4.94E-01	(9)	4.94E-01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1,3,5-Trimethylbenzene	7.80E+02	(2)	1.00E+04	(6)	5.53E+01	(9)	5.53E+01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	0.000978	<0.05	<0.0011	<0.0011	0.00249	<0.0008	<0.0008
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1,3-Dichloropropane	1.60E+03	(2)	2.00E+04	(6)	4.56E+01	(9)	4.56E+01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	<0.0043	<0.0041	<0.0049	<0.0047	<0.0058	<0.0039	<0.0037	<0.2	<0.0044	<0.0044	0.0164	<0.0031	<0.0031
2,2-Dichloropropane	-	-	-	-	-	-	-	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.1	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
2-Butanone (MEK)	3.71E+04	(1)	8.43E+04	(5)	5.87E+02	(9)	5.87E+02	-	<0.0107	<0.0103	<0.0123	<0.0119	<0.0145	<0.0098	<0.0093	<0.5	<0.0111	<0.0109	0.0177	<0.0077	<0.0077
2-Chlorotoluene	1.56E+03	(1)	6.19E+03	(5)	2.57E+02	(9)	2.57E+02	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
2-Hexanone	9.38E+02	(1)	9.73E+02	(5)	3.53E+03	(9)	9.38E+02	-	<0.0107	<0.0103	<0.0123	<0.0119	<0.0145	<0.0098	<0.0093	<0.5	<0.0111	<0.0109	<0.0081	<0.0077	<0.0077
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	<0.0043	<0.0041	<0.0049	<0.0047	<0.0058	<0.0039	<0.0037	<0.2	<0.0044	<0.0044	0.0168	<0.0031	<0.0031
4-Chlorotoluene	1.60E+03	(2)	2.00E+04	(6)	8.30E+01	(9)	8.30E+01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
4-Isopropyltoluene	-	-	-	-	-	-	-	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
4-Methyl-2-pentanone	5.30E+03	(2)	5.30E+04	(6)	1.06E+02	(9)	1.06E+02	-	<0.0107	<0.0103	<0.0123	<0.0119	<0.0145	<0.0098	<0.0093	<0.5	<0.0111	<0.0109	<0.0081	<0.0077	<0.0077

Table 7
Aeration Basin Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 1-8 (2-4')	SWMU 1-6 (4-6')	SWMU 1-6 (7.5-8')	SWMU 1-7 (12-14')	SWMU 1-7 (14-16')	SWMU 1-7 (16-18')	SWMU 1-8 (10-12')	SWMU 1-8 (12-14')	SWMU 1-8 (16-18')	SWMU 1-8 (19-20')	SWMU 1-8 (4-6')	SWMU 1-9 (0-0.5')	SWMU 1-9 (1.5-2')
									1210372-020	1210372-022	1210372-023	1210372-018	1210372-019	1210372-015	1210372-007	1210372-008	1210372-009	1210372-005	1210372-006	1210811-001	1210811-002
									10/4/2012	10/4/2012	10/4/2012	10/4/2012	10/4/2012	10/4/2012	10/5/2012	10/5/2012	10/5/2012	10/5/2012	10/5/2012	10/15/2012	10/15/2012
Acetone	6.66E+04	(1)	2.21E+05	(5)	1.78E+03	(9)	1.78E+03	-	0.477	0.0625	<0.0123	0.0138	<0.0145	0.00987	0.145	<0.75	0.0364	0.0272	0.114	0.0395	0.0326
Benzene	1.54E+01	(1)	8.47E+01	(4)	7.96E-01	(9)	7.96E-01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	0.00136	0.00119	<0.05	<0.0011	<0.0011	0.0024	0.00139	0.00193
Bromobenzene	3.00E+02	(2)	1.80E+03	(6)	1.66E+01	(9)	1.66E+01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Bromodichloromethane	5.41E+00	(1)	3.01E+01	(4)	1.25E-01	(9)	1.25E-01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Bromoform	6.16E+02	(1)	2.42E+03	(4)	2.78E+02	(9)	2.78E+02	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Bromomethane	1.65E+01	(1)	1.64E+01	(5)	8.86E-01	(9)	8.86E-01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.15	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Carbon disulfide	1.53E+03	(1)	1.58E+03	(5)	1.30E+02	(9)	1.30E+02	-	<0.0107	<0.0103	<0.0123	<0.0119	<0.0145	<0.0098	<0.0093	<0.5	<0.0111	<0.0109	<0.0081	<0.0077	<0.0077
Carbon tetrachloride	1.08E+01	(1)	5.98E+01	(4)	7.39E-01	(9)	7.39E-01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.1	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Chlorobenzene	3.76E+02	(1)	4.06E+02	(5)	2.27E+01	(9)	2.27E+01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Chloroethane	2.98E+04	(1)	2.61E+04	(5)	2.48E+03	(9)	2.48E+03	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.1	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Chloroform	5.86E+00	(1)	3.27E+01	(4)	2.12E-01	(9)	2.12E-01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Chloromethane	2.75E+02	(1)	2.41E+02	(5)	2.03E+01	(9)	2.03E+01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.15	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
cis-1,2-DCE	1.56E+02	(1)	6.19E+02	(5)	8.47E+00	(9)	8.47E+00	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
cis-1,3-Dichloropropene	3.37E+01	(1)	1.77E+02	(4)	5.71E-01	(9)	5.71E-01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Dibromochloromethane	1.21E+01	(1)	6.24E+01	(4)	1.52E-01	(9)	1.52E-01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Dibromomethane	5.16E+01	(1)	2.54E+02	(4)	7.89E-01	(9)	7.89E-01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.1	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Dichlorodifluoromethane	1.68E+02	(1)	1.49E+02	(5)	1.71E+02	(9)	1.49E+02	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Ethylbenzene	6.84E+01	(1)	3.78E+02	(4)	5.98E+00	(9)	5.98E+00	-	0.00563	<0.001	<0.0012	<0.0012	<0.0015	<0.001	0.0047	<0.05	<0.0011	<0.0011	0.00249	<0.0008	<0.0008
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.1	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Isopropylbenzene	2.43E+03	(1)	2.81E+03	(5)	3.99E+02	(9)	3.99E+02	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Methyl tert-butyl ether (MTBE)	9.01E+02	(1)	4.89E+03	(4)	1.11E+01	(9)	1.11E+01	-	<0.0011	<0.001	<0.0012	<0.0012	0.0019	<0.001	<0.0009	<0.05	0.0241	<0.0011	0.0081	<0.0008	<0.0008
Methylene chloride	4.09E+02	(1)	1.12E+03	(5)	1.90E+01	(9)	1.90E+01	-	<0.0032	<0.0031	<0.0037	<0.0036	<0.0044	<0.0029	<0.0028	<0.15	<0.0033	<0.0033	<0.0024	<0.0023	<0.0023
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	<0.0021	<0.0021	<0.0025	<0.0024	<0.0029	<0.002	<0.0019	<0.1	<0.0022	<0.0022	0.0113	<0.0015	<0.0015
n-Butylbenzene	3.90E+03	(2)	5.10E+04	(6)	1.15E+03	(9)	1.15E+03	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.15	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
n-Propylbenzene	3.40E+03	(2)	2.10E+04	(6)	4.56E+02	(9)	4.56E+02	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	0.00136	<0.0008	<0.0008
sec-Butylbenzene	-	-	-	-	-	-	-	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Styrene	7.28E+03	(1)	9.99E+03	(5)	6.40E+02	(9)	6.40E+02	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
tert-Butylbenzene	-	-	-	-	-	-	-	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Tetrachloroethene (PCE)	7.02E+00	(1)	3.66E+01	(4)	1.98E-01	(9)	1.98E-01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Toluene	5.27E+03	(1)	1.34E+04	(5)	5.84E+02	(9)	5.84E+02	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	0.00426	<0.05	<0.0011	<0.0011	0.00218	0.00215	0.00164
trans-1,2-DCE	2.70E+02	(1)	2.73E+02	(5)	1.24E+01	(9)	1.24E+01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Trichloroethene (TCE)	8.77E+00	(1)	7.68E+00	(5)	4.85E-01	(9)	4.85E-01	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Trichlorofluoromethane	1.41E+03	(1)	1.30E+03	(5)	4.10E+02	(9)	4.10E+02	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Vinyl chloride	7.28E-01	(1)	2.61E+01	(4)	2.50E-02	(9)	2.50E-02	-	<0.0011	<0.001	<0.0012	<0.0012	<0.0015	<0.001	<0.0009	<0.05	<0.0011	<0.0011	<0.0008	<0.0008	<0.0008
Xylenes, Total	8.14E+02	(1)	7.43E+02	(5)	7.21E+01	(9)	7.21E+01	-	0.0431	<0.0021	<0.0025	<0.0024	<0.0029	<0.002	0.0262	<0.1	<0.0022	<0.0022	0.0128	<0.0015	<0.0015
Semi Volatile Organics - (EPA Method 8270) mg/kg																					
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
2,4,5-Trichlorophenol	6.11E+03	(1)	2.38E+04	(5)	4.78E+03	(9)	4.78E+03	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
2,4,6-Trichlorophenol	6.11E+01	(1)	2.38E+02	(5)	4.78E+01	(9)	4.78E+01	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
2,4-Dichlorophenol	1.83E+02	(1)	7.15E+02	(5)	4.60E+01	(9)	4.60E+01	-	<0.3992	<0.4023	<0.397	<0.4021	<0.4044	<0.3991	<2.0053	<2.0074	<0.397	<0.4023	<0.3981	<4.0268	<0.3979
2,4-Dimethylphenol	1.22E+03	(1)	4.76E+03	(5)	3.07E+02	(9)	3.07E+02	-	<0.2994	<0.3017	<0.2977	<0.3016	<0.3033	<0.2993	<1.504	<1.5055	<0.2977	<0.3017	<0.2986	<3.0201	<0.2984
2,4-Dinitrophenol	1.22E+02	(1)	4.76E+02	(5)	2.91E+01	(9)	2.91E+01	-	<0.3992	<0.4023	<0.397	<0.4021	<0.4044	<0.3991	<2.0053	<2.0074	<0.397	<0.4023	<0.3981	<4.0268	<0.3979
2,4-Dinitrotoluene	1.57E+01	(1)	6.18E+01	(4)	1.04E+00	(9)	1.04E+00	-	<0.499	<0.5028	<0.4962	<0.5027	<0.5056	<0.4988	<2.5067	<2.5092	<0.4962	<0.5028	<0.4977	<5.0336	<0.4973
2,6-Dinitrotoluene	6.11E+01	(1)	2.38E+02	(5)	1.77E+01	(9)	1.77E+01	-	<0.499	<0.5028	<0.4962	<0.5027	<0.5056	<0.4988	<2.5067	<2.5092	<0.4962	<0.5028	<0.4977	<5.0336	<0.4973

Table 7
Aeration Basin Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 1-6 (2-4')	SWMU 1-6 (4-6')	SWMU 1-6 (7.5-8')	SWMU 1-7 (12-14')	SWMU 1-7 (14-16')	SWMU 1-7 (16-18')	SWMU 1-8 (10-12')	SWMU 1-8 (12-14')	SWMU 1-8 (16-18')	SWMU 1-8 (19-20')	SWMU 1-8 (4-6')	SWMU 1-9 (0-0.5')	SWMU 1-9 (1.5-2')
									1210372-020	1210372-022	1210372-023	1210372-018	1210372-019	1210372-015	1210372-007	1210372-008	1210372-009	1210372-005	1210372-006	1210811-001	1210811-002
									10/4/2012	10/4/2012	10/4/2012	10/4/2012	10/4/2012	10/4/2012	10/5/2012	10/5/2012	10/5/2012	10/5/2012	10/5/2012	10/15/2012	10/15/2012
2-Chloronaphthalene	6.11E+01	(1)	1.49E+02	(4)	4.01E-01	(9)	4.01E-01	-	<0.2495	<0.2514	<0.2481	<0.2513	<0.2528	<0.2494	<1.2533	<1.2546	<0.2481	<0.2514	<0.2488	<2.5168	<0.2487
2-Chlorophenol	3.91E+02	(1)	1.55E+03	(5)	5.33E+01	(9)	5.33E+01	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
2-Methylphenol	3.10E+03	(2)	3.10E+04	(6)	2.67E+02	(9)	2.67E+02	-	<0.499	<0.5028	<0.4962	<0.5027	<0.5056	<0.4988	<2.5067	<2.5092	<0.4962	<0.5028	<0.4977	<5.0336	<0.4973
2-Nitroaniline	6.10E+02	(2)	6.00E+03	(6)	2.86E+01	(9)	2.86E+01	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
2-Nitrophenol	-	-	-	-	-	-	-	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
3,3´-Dichlorobenzidine	1.08E+01	(1)	4.26E+01	(4)	3.41E+00	(9)	3.41E+00	-	<0.2495	<0.2514	<0.2481	<0.2513	<0.2528	<0.2494	<1.2533	<1.2546	<0.2481	<0.2514	<0.2488	<2.5168	<0.2487
3+4-Methylphenol	-	-	-	-	-	-	-	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
3-Nitroaniline	-	-	-	-	-	-	-	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
4,6-Dinitro-2-methylphenol	4.90E+00	(2)	4.90E+01	(6)	9.22E-01	(9)	9.22E-01	-	<0.499	<0.5028	<0.4962	<0.5027	<0.5056	<0.4988	<2.5067	<2.5092	<0.4962	<0.5028	<0.4977	<5.0336	<0.4973
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
4-Chloro-3-methylphenol	6.10E+03	(2)	6.20E+04	(6)	5.99E+02	(9)	5.99E+02	-	<0.499	<0.5028	<0.4962	<0.5027	<0.5056	<0.4988	<2.5067	<2.5092	<0.4962	<0.5028	<0.4977	<5.0336	<0.4973
4-Chloroaniline	2.40E+01	(3)	8.60E+01	(7)	5.99E-02	(9)	5.99E-02	-	<0.499	<0.5028	<0.4962	<0.5027	<0.5056	<0.4988	<2.5067	<2.5092	<0.4962	<0.5028	<0.4977	<5.0336	<0.4973
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
4-Nitroaniline	2.40E+02	(3)	8.60E+02	(7)	6.45E-01	(9)	6.45E-01	-	<0.3992	<0.4023	<0.397	<0.4021	<0.4044	<0.3991	<2.0053	<2.0074	<0.397	<0.4023	<0.3981	<4.0268	<0.3979
4-Nitrophenol	-	-	-	-	-	-	-	-	<0.2495	<0.2514	<0.2481	<0.2513	<0.2528	<0.2494	<1.2533	<1.2546	<0.2481	<0.2514	<0.2488	<2.5168	<0.2487
Acenaphthene	3.44E+03	(1)	1.86E+04	(5)	7.79E+03	(9)	3.44E+03	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Acenaphthylene	-	-	-	-	-	-	-	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Aniline	8.50E+02	(3)	3.00E+03	(7)	1.80E+00	(9)	1.80E+00	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Anthracene	1.72E+04	(1)	6.68E+04	(5)	1.25E+05	(9)	1.72E+04	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Azobenzene	5.10E+01	(3)	2.30E+02	(7)	3.69E-01	(9)	3.69E-01	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Benz(a)anthracene	1.48E+00	(1)	2.34E+01	(4)	3.61E+01	(9)	1.48E+00	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Benzo(a)pyrene	1.48E-01	(1)	2.34E+00	(4)	1.20E+01	(9)	1.48E-01	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Benzo(b)fluoranthene	1.48E+00	(1)	2.34E+01	(4)	1.22E+02	(9)	1.48E+00	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Benzo(k)fluoranthene	1.48E+01	(1)	2.34E+02	(4)	1.20E+03	(9)	1.48E+01	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Benzoic acid	2.40E+05	(2)	2.50E+06	(6)	6.45E+03	(9)	6.45E+03	-	<0.499	<0.5028	<0.4962	<0.5027	<0.5056	<0.4988	<2.5067	<2.5092	<0.4962	<0.5028	<0.4977	<5.0336	<0.4973
Benzyl alcohol	6.10E+03	(2)	6.20E+04	(6)	1.71E+02	(9)	1.71E+02	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Bis(2-chloroethoxy)methane	1.80E+02	(2)	1.80E+03	(6)	5.07E+00	(9)	5.07E+00	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Bis(2-chloroethyl)ether	2.68E+00	(1)	1.42E+01	(4)	1.21E-02	(9)	1.21E-02	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Bis(2-chloroisopropyl)ether	9.15E+01	(1)	4.54E+02	(4)	1.07E+00	(9)	1.07E+00	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Bis(2-ethylhexyl)phthalate	3.47E+02	(1)	1.37E+03	(4)	3.97E+03	(9)	3.47E+02	-	<0.499	<0.5028	<0.4962	<0.5027	<0.5056	<0.4988	<2.5067	<2.5092	<0.4962	<0.5028	<0.4977	<5.0336	<0.4973
Butyl benzyl phthalate	2.60E+03	(3)	9.10E+03	(7)	9.22E+01	(9)	9.22E+01	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Carbazole	-	-	-	-	-	-	-	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Chrysene	1.48E+02	(1)	2.34E+03	(4)	3.68E+03	(9)	1.48E+02	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Dibenz(a,h)anthracene	1.48E-01	(1)	2.34E+00	(4)	3.90E+01	(9)	1.48E-01	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Dibenzofuran	7.80E+01	(2)	1.00E+03	(6)	5.07E+01	(9)	5.07E+01	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Diethyl phthalate	4.89E+04	(1)	1.91E+05	(5)	4.45E+03	(9)	4.45E+03	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Dimethyl phthalate	6.11E+05	(1)	2.38E+06	(5)	3.71E+04	(9)	3.71E+04	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Di-n-butyl phthalate	6.11E+03	(1)	2.38E+04	(5)	3.21E+03	(9)	3.21E+03	-	<0.499	<0.5028	<0.4962	<0.5027	<0.5056	<0.4988	<2.5067	<2.5092	<0.4962	<0.5028	<0.4977	<5.0336	<0.4973
Di-n-octyl phthalate	-	-	-	-	-	-	-	-	<0.2495	<0.2514	<0.2481	<0.2513	<0.2528	<0.2494	<1.2533	<1.2546	<0.2481	<0.2514	<0.2488	<4.0268	<0.3979
Fluoranthene	2.29E+03	(1)	8.91E+03	(5)	5.61E+04	(9)	2.29E+03	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Fluorene	2.29E+03	(1)	8.91E+03	(5)	9.36E+03	(9)	2.29E+03	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Hexachlorobenzene	3.04E+00	(1)	1.20E+01	(4)	1.83E+00	(9)	1.83E+00	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Hexachlorocyclopentadiene	3.67E+02	(1)	8.11E+02	(5)	2.43E+02	(9)	2.43E+02	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Hexachloroethane	4.28E+01	(1)	1.67E+02	(5)	3.77E+00	(9)	3.77E+00	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Indeno(1,2,3-cd)pyrene	1.48E+00	(1)	2.34E+01	(4)	3.98E+02	(9)	1.48E+00	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Isophorone	5.12E+03	(1)	4.75E+04	(5)	8.84E+01	(9)	8.84E+01	-	<0.499	<0.5028	<0.4962	<0.5027	<0.5056	<0.4988	<2.5067	<2.5092	<0.4962	<0.5028	<0.4977	<5.0336	<0.4973

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									1210372-020	1210372-022	1210372-023	1210372-018	1210372-019	1210372-015	1210372-007	1210372-008	1210372-009	1210372-005	1210372-006	1210811-001	1210811-002
									10/4/2012	10/4/2012	10/4/2012	10/4/2012	10/4/2012	10/4/2012	10/5/2012	10/5/2012	10/5/2012	10/5/2012	10/5/2012	10/15/2012	10/15/2012
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Nitrobenzene	5.35E+01	(1)	3.00E+02	(4)	2.88E-01	(9)	2.88E-01	-	<0.499	<0.5028	<0.4962	<0.5027	<0.5056	<0.4988	<2.5067	<2.5092	<0.4962	<0.5028	<0.4977	<5.0336	<0.4973
N-Nitrosodi-n-propylamine	6.90E-01	(3)	2.50E+00	(7)	3.23E-03	(9)	3.23E-03	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
N-Nitrosodiphenylamine	9.93E+02	(1)	3.91E+03	(4)	2.61E+02	(9)	2.61E+02	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Pentachlorophenol	8.94E+00	(1)	3.00E+01	(4)	5.90E+00	(9)	5.90E+00	-	<0.3992	<0.4023	<0.397	<0.4021	<0.4044	<0.3991	<2.0053	<2.0074	<0.397	<0.4023	<0.3981	<4.0268	<0.3979
Phenanthrene	1.83E+03	(1)	7.15E+03	(5)	1.32E+04	(9)	1.83E+03	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Phenol	1.83E+04	(1)	6.88E+04	(5)	2.29E+03	(9)	2.29E+03	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Pyrene	1.72E+03	(1)	6.68E+03	(5)	4.12E+04	(9)	1.72E+03	-	<0.1996	<0.2011	<0.1985	<0.2011	<0.2022	<0.1995	<1.0027	<1.0037	<0.1985	<0.2011	<0.1991	<2.0134	<0.1989
Pyridine	7.80E+01	(2)	1.00E+03	(6)	2.44E+00	(9)	2.44E+00	-	<0.499	<0.5028	<0.4962	<0.5027	<0.5056	<0.4988	<2.5067	<2.5092	<0.4962	<0.5028	<0.4977	<5.0336	<0.4973
Total Petroleum Hydrocarbons - (EPA Method 8015B) mg/kg																					
Diesel Range Organics (DRO)	1.00E+03	(11)	1.00E+03	(11)	1.00E+03	(11)	-	-	<10	<10	<10	<10	<10	<10	100	53	<10	<10	<10	<10	<10
Gasoline Range Organics (GRO)	-	-	-	-	-	-	-	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Motor Oil Range Organics (MRO)	3.00E+03	(12)	3.00E+03	(12)	3.00E+03	(12)	-	-	<50	<49	<50	<50	<49	<49	280	<50	<50	<50	<52	280	<50

-- No screening level or analytical result available

NMED - Risk Assessment Guidance for Site Investigations and Remediation (June 14, 2012)

EPA - Regional Screening Levels (May 2012)

(1) NMED Residential Screening Level

(2) EPA Residential Screening Level

(3) EPA Residential - Screening Levels (May 2012) multiplied by 10 because the constituent is listed as carcinogenic

(4) NMED Industrial Occupational Screening Level

(5) NMED Construction Worker Screening Level

(6) EPA Industrial - Screening Levels (May 2012)

(7) EPA Industrial - Screening Levels (May 2012) multiplied by 10

(8) SoilGW NMED Dilution Attenuation Factor (DAF) = 461

(9) SoilGW Risk-based EPA DAF = 461

(10) SoilGW MCL-based EPA DAF = 461

(11) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "uknown oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(12) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "waste oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(13) Background concentrations to be determined

Bold represents value above Residential Screening Level
yellow highlight represents value above Leachate (DAF) Screening Level
Bold with yellow - value exceeds Residential Screening Level and DAF

Table 7
Aeration Basin Soil Analytical Results Summary
Western Refinery Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 1-10 (0-0.5')	SWMU 1-10 (1.5-2')	SWMU 1-11 (0-0.5')	SWMU 1-11 (1.5-2')	SWMU 1-12 (0.5-1')	SWMU 1-12 (0-0.5')	SWMU 1-13 (0-0.5')	SWMU 1-13 (1.5-2')	SWMU 1-13 (2-4')	SWMU 1-13 (4-6')	SWMU 1-14 (0-0.5')	SWMU 1-14 (1.5-2')	SWMU 1-15 (0-0.5')
									1210811-003	1210811-004	1210811-005	1210811-006	1210811-008	1210811-007	1210692-021	1210692-022	1210692-023	1210692-024	1210811-009	1210811-010	1210811-012
									10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/15/2012	10/15/2012	10/15/2012
Metals (mg/kg)																					
Antimony	3.13E+01	(1)	1.24E+02	(5)	3.05E+02	(9)	3.13E+01	-	<5	<5.0004	<5.0004	<5.0002	<5.0004	<4.9995	<5	<5.0004	<4.9999	<4.9997	<4.9998	<12.5011	<12.501
Arsenic	3.90E+00	(1)	1.77E+01	(4)	6.05E+00	(9)	3.90E+00	-	<5	<5.0004	<5.0004	<5.0002	<5.0004	<4.9995	<5	<5.0004	<4.9999	<4.9997	<4.9998	<12.5011	<12.501
Barium	1.56E+04	(1)	4.35E+03	(5)	1.39E+05	(9)	4.35E+03	-	590	580	510	590	440	400	600	310	250	120	530	360	360
Beryllium	1.56E+02	(1)	1.44E+02	(5)	2.66E+04	(9)	1.44E+02	-	0.65	0.54	0.77	0.61	0.76	0.95	0.56	0.74	0.6	0.71	1	0.75	0.75
Cadmium	7.03E+01	(1)	2.77E+02	(5)	6.33E+02	(9)	7.03E+01	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.5	<0.5
Chromium III	1.17E+05	(1)	4.65E+05	(5)	4.54E+10	(9)	1.17E+05	-	24	15	15	12	14	15	11	7.1	22	7.8	11	11	10
Chromium VI	2.97E+00	(1)	6.31E+01	(4)	3.83E+00	(9)	2.97E+00	-	24	15	15	12	14	15	11	7.1	22	7.8	11	11	10
Cobalt	2.30E+01	(2)	3.00E+02	(6)	9.68E+01	(9)	2.30E+01	-	5	4.2	5.4	4	4.9	5.4	3.6	3.8	4.3	4.1	5.4	4.4	4.4
Cyanide	4.69E+01	(1)	1.86E+02	(5)	1.02E+02	(9)	4.69E+01	-	1.8	0.4	0.72	1.7	1.2	<0.25	0.33	<0.271	<0.279	<0.284	<0.268	<0.287	<0.276
Iron	5.48E+04	(1)	2.17E+05	(5)	2.98E+05	(9)	5.48E+04	-	14000	7400	14000	7400	13000	15000	13000	10000	11000	11000	14000	13000	13000
Lead	4.00E+02	(1)	8.00E+02	(5)	6.45E+03	(10)	4.00E+02	-	9.1	3	3.5	1.4	1.6	1.6	3.5	3.7	4.2	2.5	1.9	4.1	3.1
Manganese	1.86E+03	(1)	4.40E+02	(5)	2.64E+04	(9)	4.40E+02	-	560	790	620	400	460	390	590	510	250	320	300	430	350
Mercury	1.56E+01	(1)	1.36E+01	(5)	1.51E+01	(9)	1.36E+01	-	0.2	0.091	0.84	0.19	0.12	0.16	0.12	<0.033	0.17	<0.033	0.05	<0.033	<0.033
Nickel	1.56E+03	(1)	6.19E+03	(5)	2.20E+04	(9)	1.56E+03	-	14	11	8.8	7.1	8	9.9	6.3	6.1	7	6.6	8.9	7.6	7.6
Selenium	3.91E+02	(1)	1.55E+03	(5)	4.45E+02	(9)	3.91E+02	-	<5	<5.0004	<5.0004	<5.0002	<5.0004	<4.9995	<5	<5.0004	<4.9999	<4.9997	<4.9998	<12.5011	<12.501
Silver	3.91E+02	(1)	1.55E+03	(5)	7.22E+02	(9)	3.91E+02	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.2501	<1.2501
Vanadium	3.91E+02	(1)	1.55E+03	(5)	8.42E+04	(9)	3.91E+02	-	24	22	25	18	24	24	18	15	18	17	20	19	19
Zinc	2.35E+04	(1)	9.29E+04	(5)	3.14E+05	(9)	2.35E+04	-	70	26	39	44	40	61	30	13	29	14	33	16	18
Volatile Organic Compounds - (EPA Method 8260) mg/kg																					
1,1,1,2-Tetrachloroethane	2.91E+01	(1)	1.61E+02	(4)	7.59E-01	(9)	7.59E-01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,1,1-Trichloroethane	1.56E+04	(1)	1.48E+04	(5)	1.34E+03	(9)	1.34E+03	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,1,2,2-Tetrachloroethane	8.02E+00	(1)	4.35E+01	(4)	9.82E-02	(9)	9.82E-02	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,1,2-Trichloroethane	2.81E+00	(1)	1.33E+01	(4)	5.14E-02	(9)	5.14E-02	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,1-Dichloroethane	6.45E+01	(1)	3.59E+02	(4)	2.75E+00	(9)	2.75E+00	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,1-Dichloroethene	4.49E+02	(1)	4.32E+02	(5)	5.36E+01	(9)	5.36E+01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,1-Dichloropropene	-	-	-	-	-	-	-	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,2,3-Trichlorobenzene	4.90E+01	(2)	4.90E+02	(6)	6.92E+00	(9)	6.92E+00	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,2,3-Trichloropropane	4.97E-02	(1)	7.23E+00	(5)	1.15E-03	(9)	1.15E-03	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,2,4-Trimethylbenzene	6.20E+01	(2)	2.60E+02	(6)	9.68E+00	(9)	9.68E+00	-	0.00282	0.00143	0.00219	0.00449	0.00382	0.00394	0.0031	0.00263	<0.0011	<0.0011	0.00194	<0.0009	<0.0007
1,2-Dibromo-3-chloropropane	1.86E+00	(1)	1.08E+00	(4)	5.07E-04	(9)	5.07E-04	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,2-Dibromoethane (EDB)	5.88E-01	(1)	3.22E+00	(4)	7.10E-03	(9)	7.10E-03	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,2-Dichloroethane (EDC)	7.89E+00	(1)	4.35E+01	(4)	1.64E-01	(9)	1.64E-01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,2-Dichloropropane	1.52E+01	(1)	2.50E+01	(5)	4.94E-01	(9)	4.94E-01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,3,5-Trimethylbenzene	7.80E+02	(2)	1.00E+04	(6)	5.53E+01	(9)	5.53E+01	-	0.00105	<0.0008	<0.001	0.00165	0.00149	0.00161	0.00111	0.00102	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,3-Dichloropropane	1.60E+03	(2)	2.00E+04	(6)	4.56E+01	(9)	4.56E+01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	<0.0036	<0.0033	<0.0039	<0.0031	<0.0029	<0.0036	<0.0044	<0.0033	<0.0045	<0.0046	<0.003	<0.0036	<0.0029
2,2-Dichloropropane	-	-	-	-	-	-	-	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
2-Butanone (MEK)	3.71E+04	(1)	8.43E+04	(5)	5.87E+02	(9)	5.87E+02	-	<0.0089	<0.0083	0.0102	<0.0077	<0.0073	0.0132	<0.011	<0.0082	<0.0112	<0.0114	<0.0074	<0.0089	<0.0073
2-Chlorotoluene	1.56E+03	(1)	6.19E+03	(5)	2.57E+02	(9)	2.57E+02	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
2-Hexanone	9.38E+02	(1)	9.73E+02	(5)	3.53E+03	(9)	9.38E+02	-	<0.0089	<0.0083	<0.0098	<0.0077	<0.0073	<0.0089	<0.011	<0.0082	<0.0112	<0.0114	<0.0074	<0.0089	<0.0073
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	<0.0036	<0.0033	<0.0039	<0.0031	<0.0029	<0.0036	<0.0044	<0.0033	<0.0045	<0.0046	<0.003	<0.0036	<0.0029
4-Chlorotoluene	1.60E+03	(2)	2.00E+04	(6)	8.30E+01	(9)	8.30E+01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
4-Isopropyltoluene	-	-	-	-	-	-	-	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
4-Methyl-2-pentanone	5.30E+03	(2)	5.30E+04	(6)	1.06E+02	(9)	1.06E+02	-	<0.0089	<0.0083	<0.0098	<0.0077	<0.0073	<0.0089	<0.011	<0.0082	<0.0112	<0.0114	<0.0074	<0.0089	<0.0073

Table 7
Aeration Basin Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 1-10 (0-0.5')	SWMU 1-10 (1.5-2')	SWMU 1-11 (0-0.5')	SWMU 1-11 (1.5-2')	SWMU 1-12 (0.5-1')	SWMU 1-12 (0-0.5')	SWMU 1-13 (0-0.5')	SWMU 1-13 (1.5-2')	SWMU 1-13 (2-4')	SWMU 1-13 (4-6')	SWMU 1-14 (0-0.5')	SWMU 1-14 (1.5-2')	SWMU 1-15 (0-0.5')
									1210811-003	1210811-004	1210811-005	1210811-006	1210811-008	1210811-007	1210692-021	1210692-022	1210692-023	1210692-024	1210811-009	1210811-010	1210811-012
									10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/15/2012	10/15/2012	10/15/2012
Acetone	6.66E+04	(1)	2.21E+05	(5)	1.78E+03	(9)	1.78E+03	-	0.146	0.0464	0.329	0.0686	0.0917	3.23	0.128	0.0479	0.0716	0.0561	0.0471	0.0202	0.0754
Benzene	1.54E+01	(1)	8.47E+01	(4)	7.96E-01	(9)	7.96E-01	-	0.00176	0.000934	0.00207	0.00131	0.00191	0.00232	0.00154	0.00142	<0.0011	<0.0011	0.00171	<0.0009	0.00192
Bromobenzene	3.00E+02	(2)	1.80E+03	(6)	1.66E+01	(9)	1.66E+01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Bromodichloromethane	5.41E+00	(1)	3.01E+01	(4)	1.25E-01	(9)	1.25E-01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Bromoform	6.16E+02	(1)	2.42E+03	(4)	2.78E+02	(9)	2.78E+02	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Bromomethane	1.65E+01	(1)	1.64E+01	(5)	8.86E-01	(9)	8.86E-01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Carbon disulfide	1.53E+03	(1)	1.58E+03	(5)	1.30E+02	(9)	1.30E+02	-	<0.0089	<0.0083	<0.0098	<0.0077	<0.0073	<0.0089	<0.011	<0.0082	<0.0112	<0.0114	<0.0074	<0.0089	<0.0073
Carbon tetrachloride	1.08E+01	(1)	5.98E+01	(4)	7.39E-01	(9)	7.39E-01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Chlorobenzene	3.76E+02	(1)	4.06E+02	(5)	2.27E+01	(9)	2.27E+01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Chloroethane	2.98E+04	(1)	2.61E+04	(5)	2.48E+03	(9)	2.48E+03	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Chloroform	5.86E+00	(1)	3.27E+01	(4)	2.12E-01	(9)	2.12E-01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Chloromethane	2.75E+02	(1)	2.41E+02	(5)	2.03E+01	(9)	2.03E+01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
cis-1,2-DCE	1.56E+02	(1)	6.19E+02	(5)	8.47E+00	(9)	8.47E+00	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
cis-1,3-Dichloropropene	3.37E+01	(1)	1.77E+02	(4)	5.71E-01	(9)	5.71E-01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Dibromochloromethane	1.21E+01	(1)	6.24E+01	(4)	1.52E-01	(9)	1.52E-01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Dibromomethane	5.16E+01	(1)	2.54E+02	(4)	7.89E-01	(9)	7.89E-01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Dichlorodifluoromethane	1.68E+02	(1)	1.49E+02	(5)	1.71E+02	(9)	1.49E+02	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Ethylbenzene	6.84E+01	(1)	3.78E+02	(4)	5.98E+00	(9)	5.98E+00	-	0.00322	0.000992	0.00933	0.00229	0.00131	0.0233	0.00224	0.00134	<0.0011	<0.0011	0.00165	<0.0009	<0.0007
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Isopropylbenzene	2.43E+03	(1)	2.81E+03	(5)	3.99E+02	(9)	3.99E+02	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	0.00144	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Methyl tert-butyl ether (MTBE)	9.01E+02	(1)	4.89E+03	(4)	1.11E+01	(9)	1.11E+01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	0.0199	0.003	<0.0007	<0.0009	<0.0007
Methylene chloride	4.09E+02	(1)	1.12E+03	(5)	1.90E+01	(9)	1.90E+01	-	<0.0027	<0.0025	<0.0029	<0.0023	<0.0022	<0.0027	<0.0033	<0.0025	<0.0034	<0.0034	<0.0022	<0.0027	<0.0022
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	<0.0018	<0.0017	<0.002	<0.0015	<0.0015	<0.0018	<0.0022	<0.0016	<0.0022	<0.0023	<0.0015	<0.0018	<0.0015
n-Butylbenzene	3.90E+03	(2)	5.10E+04	(6)	1.15E+03	(9)	1.15E+03	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
n-Propylbenzene	3.40E+03	(2)	2.10E+04	(6)	4.56E+02	(9)	4.56E+02	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
sec-Butylbenzene	-	-	-	-	-	-	-	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	0.00128	<0.0011	<0.0007	<0.0009	<0.0007
Styrene	7.28E+03	(1)	9.99E+03	(5)	6.40E+02	(9)	6.40E+02	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
tert-Butylbenzene	-	-	-	-	-	-	-	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Tetrachloroethene (PCE)	7.02E+00	(1)	3.66E+01	(4)	1.98E-01	(9)	1.98E-01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Toluene	5.27E+03	(1)	1.34E+04	(5)	5.84E+02	(9)	5.84E+02	-	0.00562	0.00346	0.00414	0.00804	0.0047	0.00554	0.00597	0.00586	<0.0011	<0.0011	0.00574	<0.0009	0.00151
trans-1,2-DCE	2.70E+02	(1)	2.73E+02	(5)	1.24E+01	(9)	1.24E+01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Trichloroethene (TCE)	8.77E+00	(1)	7.68E+00	(5)	4.85E-01	(9)	4.85E-01	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Trichlorofluoromethane	1.41E+03	(1)	1.30E+03	(5)	4.10E+02	(9)	4.10E+02	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Vinyl chloride	7.28E-01	(1)	2.61E+01	(4)	2.50E-02	(9)	2.50E-02	-	<0.0009	<0.0008	<0.001	<0.0008	<0.0007	<0.0009	<0.0011	<0.0008	<0.0011	<0.0011	<0.0007	<0.0009	<0.0007
Xylenes, Total	8.14E+02	(1)	7.43E+02	(5)	7.21E+01	(9)	7.21E+01	-	0.0189	0.00384	0.0565	0.00902	0.00699	0.186	0.0112	0.00573	<0.0022	<0.0023	0.00542	<0.0018	0.00254
Semi Volatile Organics - (EPA Method 8270) mg/kg																					
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
2,4,5-Trichlorophenol	6.11E+03	(1)	2.38E+04	(5)	4.78E+03	(9)	4.78E+03	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
2,4,6-Trichlorophenol	6.11E+01	(1)	2.38E+02	(5)	4.78E+01	(9)	4.78E+01	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
2,4-Dichlorophenol	1.83E+02	(1)	7.15E+02	(5)	4.60E+01	(9)	4.60E+01	-	<1.9987	<4.0013	<0.7989	<0.8008	<0.7987	<0.8051	<0.8048	<0.8019	<0.4032	<0.3966	<0.7968	<0.3984	<0.4023
2,4-Dimethylphenol	1.22E+03	(1)	4.76E+03	(5)	3.07E+02	(9)	3.07E+02	-	<1.499	<3.001	<0.5992	<0.6006	<0.599	<0.6038	<0.6036	<0.6014	<0.3024	<0.2974	<0.5976	<0.2988	<0.3017
2,4-Dinitrophenol	1.22E+02	(1)	4.76E+02	(5)	2.91E+01	(9)	2.91E+01	-	<1.9987	<4.0013	<0.7989	<0.8008	<0.7987	<0.8051	<0.8048	<0.8019	<0.4032	<0.3966	<0.7968	<0.3984	<0.4023
2,4-Dinitrotoluene	1.57E+01	(1)	6.18E+01	(4)	1.04E+00	(9)	1.04E+00	-	<2.4983	<5.0017	<0.9987	<1.001	<0.9983	<1.0064	<1.006	<1.0023	<0.504	<0.4957	<0.996	<0.498	<0.5028
2,6-Dinitrotoluene	6.11E+01	(1)	2.38E+02	(5)	1.77E+01	(9)	1.77E+01	-	<2.4983	<5.0017	<0.9987	<1.001	<0.9983	<1.0064	<1.006	<1.0023	<0.504	<0.4957	<0.996	<0.498	<0.5028

Table 7
Aeration Basin Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 1-10 (0-0.5')	SWMU 1-10 (1.5-2')	SWMU 1-11 (0-0.5')	SWMU 1-11 (1.5-2')	SWMU 1-12 (0.5-1')	SWMU 1-12 (0-0.5')	SWMU 1-13 (0-0.5')	SWMU 1-13 (1.5-2')	SWMU 1-13 (2-4')	SWMU 1-13 (4-6')	SWMU 1-14 (0-0.5')	SWMU 1-14 (1.5-2')	SWMU 1-15 (0-0.5')
									1210811-003	1210811-004	1210811-005	1210811-006	1210811-008	1210811-007	1210692-021	1210692-022	1210692-023	1210692-024	1210811-009	1210811-010	1210811-012
									10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/15/2012	10/15/2012	10/15/2012
2-Chloronaphthalene	6.11E+01	(1)	1.49E+02	(4)	4.01E-01	(9)	4.01E-01	-	<1.2492	<2.5008	<0.4993	<0.5005	<0.4992	<0.5032	<0.503	<0.5012	<0.252	<0.2479	<0.498	<0.249	<0.2514
2-Chlorophenol	3.91E+02	(1)	1.55E+03	(5)	5.33E+01	(9)	5.33E+01	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
2-Methylphenol	3.10E+03	(2)	3.10E+04	(6)	2.67E+02	(9)	2.67E+02	-	<2.4983	<5.0017	<0.9987	<1.001	<0.9983	<1.0064	<1.006	<1.0023	<0.504	<0.4957	<0.996	<0.498	<0.5028
2-Nitroaniline	6.10E+02	(2)	6.00E+03	(6)	2.86E+01	(9)	2.86E+01	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
2-Nitrophenol	-	-	-	-	-	-	-	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
3,3´-Dichlorobenzidine	1.08E+01	(1)	4.26E+01	(4)	3.41E+00	(9)	3.41E+00	-	<1.2492	<2.5008	<0.4993	<0.5005	<0.4992	<0.5032	<0.503	<0.5012	<0.252	<0.2479	<0.498	<0.249	<0.2514
3+4-Methylphenol	-	-	-	-	-	-	-	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
3-Nitroaniline	-	-	-	-	-	-	-	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
4,6-Dinitro-2-methylphenol	4.90E+00	(2)	4.90E+01	(6)	9.22E-01	(9)	9.22E-01	-	<2.4983	<5.0017	<0.9987	<1.001	<0.9983	<1.0064	<1.006	<1.0023	<0.504	<0.4957	<0.996	<0.498	<0.5028
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
4-Chloro-3-methylphenol	6.10E+03	(2)	6.20E+04	(6)	5.99E+02	(9)	5.99E+02	-	<2.4983	<5.0017	<0.9987	<1.001	<0.9983	<1.0064	<1.006	<1.0023	<0.504	<0.4957	<0.996	<0.498	<0.5028
4-Chloroaniline	2.40E+01	(3)	8.60E+01	(7)	5.99E-02	(9)	5.99E-02	-	<2.4983	<5.0017	<0.9987	<1.001	<0.9983	<1.0064	<1.006	<1.0023	<0.504	<0.4957	<0.996	<0.498	<0.5028
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
4-Nitroaniline	2.40E+02	(3)	8.60E+02	(7)	6.45E-01	(9)	6.45E-01	-	<1.9987	<4.0013	<0.7989	<0.8008	<0.7987	<0.8051	<0.8048	<0.8019	<0.4032	<0.3966	<0.7968	<0.3984	<0.4023
4-Nitrophenol	-	-	-	-	-	-	-	-	<1.2492	<2.5008	<0.4993	<0.5005	<0.4992	<0.5032	<0.503	<0.5012	<0.252	<0.2479	<0.498	<0.249	<0.2514
Acenaphthene	3.44E+03	(1)	1.86E+04	(5)	7.79E+03	(9)	3.44E+03	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Acenaphthylene	-	-	-	-	-	-	-	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Aniline	8.50E+02	(3)	3.00E+03	(7)	1.80E+00	(9)	1.80E+00	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Anthracene	1.72E+04	(1)	6.68E+04	(5)	1.25E+05	(9)	1.72E+04	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Azobenzene	5.10E+01	(3)	2.30E+02	(7)	3.69E-01	(9)	3.69E-01	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Benz(a)anthracene	1.48E+00	(1)	2.34E+01	(4)	3.61E+01	(9)	1.48E+00	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Benzo(a)pyrene	1.48E-01	(1)	2.34E+00	(4)	1.20E+01	(9)	1.48E-01	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Benzo(b)fluoranthene	1.48E+00	(1)	2.34E+01	(4)	1.22E+02	(9)	1.48E+00	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Benzo(k)fluoranthene	1.48E+01	(1)	2.34E+02	(4)	1.20E+03	(9)	1.48E+01	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Benzoic acid	2.40E+05	(2)	2.50E+06	(6)	6.45E+03	(9)	6.45E+03	-	<2.4983	<5.0017	<0.9987	<1.001	<0.9983	<1.0064	<1.006	<1.0023	<0.504	<0.4957	<0.996	<0.498	<0.5028
Benzyl alcohol	6.10E+03	(2)	6.20E+04	(6)	1.71E+02	(9)	1.71E+02	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Bis(2-chloroethoxy)methane	1.80E+02	(2)	1.80E+03	(6)	5.07E+00	(9)	5.07E+00	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Bis(2-chloroethyl)ether	2.68E+00	(1)	1.42E+01	(4)	1.21E-02	(9)	1.21E-02	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Bis(2-chloroisopropyl)ether	9.15E+01	(1)	4.54E+02	(4)	1.07E+00	(9)	1.07E+00	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Bis(2-ethylhexyl)phthalate	3.47E+02	(1)	1.37E+03	(4)	3.97E+03	(9)	3.47E+02	-	<2.4983	<5.0017	<0.9987	<1.001	<0.9983	<1.0064	<1.006	<1.0023	<0.504	<0.4957	1.5	<0.498	<0.5028
Butyl benzyl phthalate	2.60E+03	(3)	9.10E+03	(7)	9.22E+01	(9)	9.22E+01	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Carbazole	-	-	-	-	-	-	-	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Chrysene	1.48E+02	(1)	2.34E+03	(4)	3.68E+03	(9)	1.48E+02	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Dibenz(a,h)anthracene	1.48E-01	(1)	2.34E+00	(4)	3.90E+01	(9)	1.48E-01	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Dibenzofuran	7.80E+01	(2)	1.00E+03	(6)	5.07E+01	(9)	5.07E+01	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Diethyl phthalate	4.89E+04	(1)	1.91E+05	(5)	4.45E+03	(9)	4.45E+03	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Dimethyl phthalate	6.11E+05	(1)	2.38E+06	(5)	3.71E+04	(9)	3.71E+04	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Di-n-butyl phthalate	6.11E+03	(1)	2.38E+04	(5)	3.21E+03	(9)	3.21E+03	-	<2.4983	<5.0017	<0.9987	<1.001	<0.9983	<1.0064	<1.006	<1.0023	<0.504	<0.4957	<0.996	<0.498	<0.5028
Di-n-octyl phthalate	-	-	-	-	-	-	-	-	<1.9987	<4.0013	<0.7989	<0.8008	<0.7987	<0.8051	<0.8048	<0.8019	<0.4032	<0.3966	<0.7968	<0.3984	<0.4023
Fluoranthene	2.29E+03	(1)	8.91E+03	(5)	5.61E+04	(9)	2.29E+03	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Fluorene	2.29E+03	(1)	8.91E+03	(5)	9.36E+03	(9)	2.29E+03	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Hexachlorobenzene	3.04E+00	(1)	1.20E+01	(4)	1.83E+00	(9)	1.83E+00	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Hexachlorocyclopentadiene	3.67E+02	(1)	8.11E+02	(5)	2.43E+02	(9)	2.43E+02	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Hexachloroethane	4.28E+01	(1)	1.67E+02	(5)	3.77E+00	(9)	3.77E+00	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Indeno(1,2,3-cd)pyrene	1.48E+00	(1)	2.34E+01	(4)	3.98E+02	(9)	1.48E+00	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Isophorone	5.12E+03	(1)	4.75E+04	(5)	8.84E+01	(9)	8.84E+01	-	<2.4983	<5.0017	<0.9987	<1.001	<0.9983	<1.0064	<1.006	<1.0023	<0.504	<0.4957	<0.996	<0.498	<0.5028

Table 7
Aeration Basin Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 1-10 (0-0.5')	SWMU 1-10 (1.5-2')	SWMU 1-11 (0-0.5')	SWMU 1-11 (1.5-2')	SWMU 1-12 (0.5-1')	SWMU 1-12 (0-0.5')	SWMU 1-13 (0-0.5')	SWMU 1-13 (1.5-2')	SWMU 1-13 (2-4')	SWMU 1-13 (4-6')	SWMU 1-14 (0-0.5')	SWMU 1-14 (1.5-2')	SWMU 1-15 (0-0.5')
									1210811-003	1210811-004	1210811-005	1210811-006	1210811-008	1210811-007	1210692-021	1210692-022	1210692-023	1210692-024	1210811-009	1210811-010	1210811-012
									10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/12/2012	10/12/2012	10/12/2012	10/12/2012	10/15/2012	10/15/2012	10/15/2012
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Nitrobenzene	5.35E+01	(1)	3.00E+02	(4)	2.88E-01	(9)	2.88E-01	-	<2.4983	<5.0017	<0.9987	<1.001	<0.9983	<1.0064	<1.006	<1.0023	<0.504	<0.4957	<0.996	<0.498	<0.5028
N-Nitrosodi-n-propylamine	6.90E-01	(3)	2.50E+00	(7)	3.23E-03	(9)	3.23E-03	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
N-Nitrosodiphenylamine	9.93E+02	(1)	3.91E+03	(4)	2.61E+02	(9)	2.61E+02	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Pentachlorophenol	8.94E+00	(1)	3.00E+01	(4)	5.90E+00	(9)	5.90E+00	-	<1.9987	<4.0013	<0.7989	<0.8008	<0.7987	<0.8051	<0.8048	<0.8019	<0.4032	<0.3966	<0.7968	<0.3984	<0.4023
Phenanthrene	1.83E+03	(1)	7.15E+03	(5)	1.32E+04	(9)	1.83E+03	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Phenol	1.83E+04	(1)	6.88E+04	(5)	2.29E+03	(9)	2.29E+03	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Pyrene	1.72E+03	(1)	6.68E+03	(5)	4.12E+04	(9)	1.72E+03	-	<0.9993	<2.0007	<0.3995	<0.4004	<0.3993	<0.4025	<0.4024	<0.4009	<0.2016	<0.1983	<0.3984	<0.1992	<0.2011
Pyridine	7.80E+01	(2)	1.00E+03	(6)	2.44E+00	(9)	2.44E+00	-	<2.4983	<5.0017	<0.9987	<1.001	<0.9983	<1.0064	<1.006	<1.0023	<0.504	<0.4957	<0.996	<0.498	<0.5028
Total Petroleum Hydrocarbons - (EPA Method 8015B) mg/kg																					
Diesel Range Organics (DRO)	1.00E+03	(11)	1.00E+03	(11)	1.00E+03	(11)	-	-	45	42	87	120	190	200	77	16	<10	<10	58	<10	<10
Gasoline Range Organics (GRO)	-	-	-	-	-	-	-	-	<5	<5	<10	<10	<10	<10	<5	<5	<5	<5	<5	<5	<5
Motor Oil Range Organics (MRO)	3.00E+03	(12)	3.00E+03	(12)	3.00E+03	(12)	-	-	230	210	86	120	190	150	<51	<51	<50	<49	94	<48	<49

-- No screening level or analytical result available
NMED - Risk Assessment Guidance for Site Investigations and Remediation (June 14, 2012)
EPA - Regional Screening Levels (May 2012)
(1) NMED Residential Screening Level
(2) EPA Residential Screening Level
(3) EPA Residential - Screening Levels (May 2012) multiplied by 10 because the constituent is listed as carcinogenic
(4) NMED Industrial Occupational Screening Level
(5) NMED Construction Worker Screening Level
(6) EPA Industrial - Screening Levels (May 2012)
(7) EPA Industrial - Screening Levels (May 2012) multiplied by 10
(8) SoilGW NMED Dilution Attenuation Factor (DAF) = 461
(9) SoilGW Risk-based EPA DAF = 461
(10) SoilGW MCL-based EPA DAF = 461
(11) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "uknown oil" with DAF = 1.0 - see report Section 5 for use of screening levels
(12) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "waste oil" with DAF = 1.0 - see report Section 5 for use of screening levels
(13) Background concentrations to be determined

Bold represents value above Residential Screening Level
yellow highlight represents value above Leachate (DAF) Screening Level
Bold with yellow - value exceeds Residential Screening Level and DAF

Table 7
Aeration Basin Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 1-15 (1.5-2')	SWMU 1-16 (0-0.5')	SWMU 1-16 (1.5-2')	SWMU 1-17 (0-0.5')	SWMU 1-17 (1-1.5')	SWMU 1-18 (0-0.5')	SWMU 1-18 (1-1.5')	SWMU 1-19 (0-0.5')	SWMU 1-20 (0-0.5')	SWMU 1-20 (1.5-2')	SWMU 1-20 (10-12')	SWMU 1-20 (4-6')	SWMU 1-21 (0-0.5')
									1210811-013	1210811-014	1210811-015	1210811-016	1210811-017	1210858-001	1210858-002	1210858-003	1210692-001	1210692-003	1210692-005	1210692-004	1210858-004
									10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/16/2012	10/16/2012	10/16/2012	10/11/2012	10/11/2012	10/11/2012	10/11/2012	10/16/2012
Metals (mg/kg)																					
Antimony	3.13E+01	(1)	1.24E+02	(5)	3.05E+02	(9)	3.13E+01	-	<5.0002	<5.0002	<12.5	<5	<5	<5	<12.4993	<5	<5	<12.5002	<5	<5	<5
Arsenic	3.90E+00	(1)	1.77E+01	(4)	6.05E+00	(9)	3.90E+00	-	<5.0002	<5.0002	<12.5	<5	<5	<5	<12.4993	<5	<5	<12.5002	<5	<5	<5
Barium	1.56E+04	(1)	4.35E+03	(5)	1.39E+05	(9)	4.35E+03	-	240	640	290	500	310	700	340	530	740	1000	1100	190	440
Beryllium	1.56E+02	(1)	1.44E+02	(5)	2.66E+04	(9)	1.44E+02	-	0.79	0.46	<0.7499	0.67	0.78	0.35	<0.75	0.68	0.71	<0.75	1	0.97	0.77
Cadmium	7.03E+01	(1)	2.77E+02	(5)	6.33E+02	(9)	7.03E+01	-	<0.2	<0.2	<0.5	<0.2	<0.2	<0.2	<0.5	<0.2	<0.2	<0.5	<0.2	<0.2	<0.2
Chromium III	1.17E+05	(1)	4.65E+05	(5)	4.54E+10	(9)	1.17E+05	-	11	3.9	9.9	6.6	8.8	3.4	9.2	13	19	11	12	10	9.9
Chromium VI	2.97E+00	(1)	6.31E+01	(4)	3.83E+00	(9)	2.97E+00	-	11	3.9	9.9	6.6	8.8	3.4	9.2	13	19	11	12	10	9.9
Cobalt	2.30E+01	(2)	3.00E+02	(6)	9.68E+01	(9)	2.30E+01	-	5.3	3	4.2	4.1	4.1	1.9	3.8	3.8	4	4.7	5.8	4.9	4.1
Cyanide	4.69E+01	(1)	1.86E+02	(5)	1.02E+02	(9)	4.69E+01	-	<0.281	<0.254	<0.285	<0.244	<0.273	<0.261	<0.282	<0.26	<0.247	<0.256	<0.293	<0.278	<0.274
Iron	5.48E+04	(1)	2.17E+05	(5)	2.98E+05	(9)	5.48E+04	-	12000	3400	12000	8200	11000	3600	11000	13000	15000	16000	18000	17000	14000
Lead	4.00E+02	(1)	8.00E+02	(5)	6.45E+03	(10)	4.00E+02	-	1.4	<0.5	4.2	0.82	3.5	<0.5	6.1	2.8	2.6	3.9	1.5	2.8	2.6
Manganese	1.86E+03	(1)	4.40E+02	(5)	2.64E+04	(9)	4.40E+02	-	400	330	790	360	340	300	1500	550	650	950	540	330	450
Mercury	1.56E+01	(1)	1.36E+01	(5)	1.51E+01	(9)	1.36E+01	-	<0.033	<0.033	0.033	<0.033	<0.033	<0.033	<0.033	0.056	0.038	<0.033	<0.033	<0.033	<0.033
Nickel	1.56E+03	(1)	6.19E+03	(5)	2.20E+04	(9)	1.56E+03	-	8.3	4.6	7.2	6.4	7.2	3.6	6.4	6.5	6.9	7.3	12	8.6	7.5
Selenium	3.91E+02	(1)	1.55E+03	(5)	4.45E+02	(9)	3.91E+02	-	<5.0002	<5.0002	<12.4989	<5	<5.0004	<5	<12.4993	<5	<5	<12.5002	<5	<5	<5
Silver	3.91E+02	(1)	1.55E+03	(5)	7.22E+02	(9)	3.91E+02	-	<0.5	<0.5	<1.2499	<0.5	<0.5	<0.5	<1.2499	<1.25	<0.5	<1.25	<0.5	<0.5	<0.5
Vanadium	3.91E+02	(1)	1.55E+03	(5)	8.42E+04	(9)	3.91E+02	-	22	14	18	19	13	11	20	18	22	29	21	17	19
Zinc	2.35E+04	(1)	9.29E+04	(5)	3.14E+05	(9)	2.35E+04	-	21	14	17	15	15	11	15	25	22	17	24	16	17
Volatile Organic Compounds - (EPA Method 8260) mg/kg																					
1,1,1,2-Tetrachloroethane	2.91E+01	(1)	1.61E+02	(4)	7.59E-01	(9)	7.59E-01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,1,1-Trichloroethane	1.56E+04	(1)	1.48E+04	(5)	1.34E+03	(9)	1.34E+03	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,1,2,2-Tetrachloroethane	8.02E+00	(1)	4.35E+01	(4)	9.82E-02	(9)	9.82E-02	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,1,2-Trichloroethane	2.81E+00	(1)	1.33E+01	(4)	5.14E-02	(9)	5.14E-02	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,1-Dichloroethane	6.45E+01	(1)	3.59E+02	(4)	2.75E+00	(9)	2.75E+00	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,1-Dichloroethene	4.49E+02	(1)	4.32E+02	(5)	5.36E+01	(9)	5.36E+01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,1-Dichloropropene	-	-	-	-	-	-	-	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,2,3-Trichlorobenzene	4.90E+01	(2)	4.90E+02	(6)	6.92E+00	(9)	6.92E+00	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,2,3-Trichloropropane	4.97E-02	(1)	7.23E+00	(5)	1.15E-03	(9)	1.15E-03	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,2,4-Trimethylbenzene	6.20E+01	(2)	2.60E+02	(6)	9.68E+00	(9)	9.68E+00	-	<0.0007	0.00423	<0.0007	0.00424	<0.0008	0.00455	<0.0007	<0.001	0.0014	<0.0009	<0.0009	<0.0007	<0.001
1,2-Dibromo-3-chloropropane	1.86E+00	(1)	1.08E+00	(4)	5.07E-04	(9)	5.07E-04	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,2-Dibromoethane (EDB)	5.88E-01	(1)	3.22E+00	(4)	7.10E-03	(9)	7.10E-03	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,2-Dichloroethane (EDC)	7.89E+00	(1)	4.35E+01	(4)	1.64E-01	(9)	1.64E-01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,2-Dichloropropane	1.52E+01	(1)	2.50E+01	(5)	4.94E-01	(9)	4.94E-01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,3,5-Trimethylbenzene	7.80E+02	(2)	1.00E+04	(6)	5.53E+01	(9)	5.53E+01	-	<0.0007	0.00176	<0.0007	0.00164	<0.0008	0.00192	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,3-Dichloropropane	1.60E+03	(2)	2.00E+04	(6)	4.56E+01	(9)	4.56E+01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	<0.0029	<0.0031	<0.003	<0.003	<0.0033	<0.0029	<0.003	<0.0039	<0.0032	<0.0036	<0.0038	<0.003	<0.0042
2,2-Dichloropropane	-	-	-	-	-	-	-	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
2-Butanone (MEK)	3.71E+04	(1)	8.43E+04	(5)	5.87E+02	(9)	5.87E+02	-	<0.0072	<0.0079	<0.0074	<0.0075	0.0107	<0.0072	<0.0075	<0.0097	0.022	<0.009	<0.0094	<0.0075	<0.0104
2-Chlorotoluene	1.56E+03	(1)	6.19E+03	(5)	2.57E+02	(9)	2.57E+02	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
2-Hexanone	9.38E+02	(1)	9.73E+02	(5)	3.53E+03	(9)	9.38E+02	-	<0.0072	<0.0079	<0.0074	<0.0075	<0.0083	<0.0072	<0.0075	<0.0097	<0.0081	<0.009	<0.0094	<0.0075	<0.0104
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	<0.0029	<0.0031	<0.003	<0.003	<0.0033	<0.0029	<0.003	<0.0039	<0.0032	<0.0036	<0.0038	<0.003	<0.0042
4-Chlorotoluene	1.60E+03	(2)	2.00E+04	(6)	8.30E+01	(9)	8.30E+01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
4-Isopropyltoluene	-	-	-	-	-	-	-	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
4-Methyl-2-pentanone	5.30E+03	(2)	5.30E+04	(6)	1.06E+02	(9)	1.06E+02	-	<0.0072	<0.0079	<0.0074	<0.0075	<0.0083	<0.0072	<0.0075	<0.0097	<0.0081	<0.009	<0.0094	<0.0075	<0.0104

Table 7
Aeration Basin Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 1-15 (1.5-2')	SWMU 1-16 (0-0.5')	SWMU 1-16 (1.5-2')	SWMU 1-17 (0-0.5')	SWMU 1-17 (1-1.5')	SWMU 1-18 (0-0.5')	SWMU 1-18 (1-1.5')	SWMU 1-19 (0-0.5')	SWMU 1-20 (0-0.5')	SWMU 1-20 (1.5-2')	SWMU 1-20 (10-12')	SWMU 1-20 (4-6')	SWMU 1-21 (0-0.5')
									1210811-013	1210811-014	1210811-015	1210811-016	1210811-017	1210858-001	1210858-002	1210858-003	1210692-001	1210692-003	1210692-005	1210692-004	1210858-004
									10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/16/2012	10/16/2012	10/16/2012	10/11/2012	10/11/2012	10/11/2012	10/11/2012	10/16/2012
Acetone	6.66E+04	(1)	2.21E+05	(5)	1.78E+03	(9)	1.78E+03	-	0.0328	0.0845	0.0282	0.377	0.0615	0.148	0.0512	0.0988	3.31	0.119	0.0217	0.0242	0.0144
Benzene	1.54E+01	(1)	8.47E+01	(4)	7.96E-01	(9)	7.96E-01	-	<0.0007	0.00134	0.00166	0.00129	0.00269	0.00109	0.0016	0.00225	0.00137	0.00151	0.00791	0.00321	0.00183
Bromobenzene	3.00E+02	(2)	1.80E+03	(6)	1.66E+01	(9)	1.66E+01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Bromodichloromethane	5.41E+00	(1)	3.01E+01	(4)	1.25E-01	(9)	1.25E-01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Bromoform	6.16E+02	(1)	2.42E+03	(4)	2.78E+02	(9)	2.78E+02	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Bromomethane	1.65E+01	(1)	1.64E+01	(5)	8.86E-01	(9)	8.86E-01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Carbon disulfide	1.53E+03	(1)	1.58E+03	(5)	1.30E+02	(9)	1.30E+02	-	<0.0072	<0.0079	<0.0074	<0.0075	<0.0083	<0.0072	<0.0075	<0.0097	<0.0081	<0.009	<0.0094	<0.0075	<0.0104
Carbon tetrachloride	1.08E+01	(1)	5.98E+01	(4)	7.39E-01	(9)	7.39E-01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Chlorobenzene	3.76E+02	(1)	4.06E+02	(5)	2.27E+01	(9)	2.27E+01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Chloroethane	2.98E+04	(1)	2.61E+04	(5)	2.48E+03	(9)	2.48E+03	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Chloroform	5.86E+00	(1)	3.27E+01	(4)	2.12E-01	(9)	2.12E-01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Chloromethane	2.75E+02	(1)	2.41E+02	(5)	2.03E+01	(9)	2.03E+01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
cis-1,2-DCE	1.56E+02	(1)	6.19E+02	(5)	8.47E+00	(9)	8.47E+00	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
cis-1,3-Dichloropropene	3.37E+01	(1)	1.77E+02	(4)	5.71E-01	(9)	5.71E-01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Dibromochloromethane	1.21E+01	(1)	6.24E+01	(4)	1.52E-01	(9)	1.52E-01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Dibromomethane	5.16E+01	(1)	2.54E+02	(4)	7.89E-01	(9)	7.89E-01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Dichlorodifluoromethane	1.68E+02	(1)	1.49E+02	(5)	1.71E+02	(9)	1.49E+02	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Ethylbenzene	6.84E+01	(1)	3.78E+02	(4)	5.98E+00	(9)	5.98E+00	-	<0.0007	0.00282	<0.0007	0.00362	<0.0008	0.00386	<0.0007	<0.001	0.0448	<0.0009	<0.0009	<0.0007	<0.001
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Isopropylbenzene	2.43E+03	(1)	2.81E+03	(5)	3.99E+02	(9)	3.99E+02	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	0.0021	<0.0009	<0.0009	<0.0007	<0.001
Methyl tert-butyl ether (MTBE)	9.01E+02	(1)	4.89E+03	(4)	1.11E+01	(9)	1.11E+01	-	0.00147	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Methylene chloride	4.09E+02	(1)	1.12E+03	(5)	1.90E+01	(9)	1.90E+01	-	<0.0022	<0.0024	<0.0022	<0.0023	<0.0025	<0.0022	<0.0022	<0.0029	<0.0024	<0.0027	<0.0028	<0.0022	<0.0031
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	<0.0014	<0.0016	<0.0015	<0.0015	<0.0017	<0.0014	<0.0015	<0.0019	<0.0016	<0.0018	<0.0019	<0.0015	<0.0021
n-Butylbenzene	3.90E+03	(2)	5.10E+04	(6)	1.15E+03	(9)	1.15E+03	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
n-Propylbenzene	3.40E+03	(2)	2.10E+04	(6)	4.56E+02	(9)	4.56E+02	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
sec-Butylbenzene	-	-	-	-	-	-	-	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Styrene	7.28E+03	(1)	9.99E+03	(5)	6.40E+02	(9)	6.40E+02	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
tert-Butylbenzene	-	-	-	-	-	-	-	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Tetrachloroethene (PCE)	7.02E+00	(1)	3.66E+01	(4)	1.98E-01	(9)	1.98E-01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Toluene	5.27E+03	(1)	1.34E+04	(5)	5.84E+02	(9)	5.84E+02	-	<0.0007	0.00712	0.00157	0.00708	0.00185	0.00687	0.0019	0.0029	0.00197	0.00105	0.00372	0.00205	0.00147
trans-1,2-DCE	2.70E+02	(1)	2.73E+02	(5)	1.24E+01	(9)	1.24E+01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Trichloroethene (TCE)	8.77E+00	(1)	7.68E+00	(5)	4.85E-01	(9)	4.85E-01	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Trichlorofluoromethane	1.41E+03	(1)	1.30E+03	(5)	4.10E+02	(9)	4.10E+02	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Vinyl chloride	7.28E-01	(1)	2.61E+01	(4)	2.50E-02	(9)	2.50E-02	-	<0.0007	<0.0008	<0.0007	<0.0008	<0.0008	<0.0007	<0.0007	<0.001	<0.0008	<0.0009	<0.0009	<0.0007	<0.001
Xylenes, Total	8.14E+02	(1)	7.43E+02	(5)	7.21E+01	(9)	7.21E+01	-	<0.0014	0.013	<0.0015	0.0234	<0.0017	0.021	0.00154	<0.0019	0.279	<0.0018	<0.0019	<0.0015	<0.0021
Semi Volatile Organics - (EPA Method 8270) mg/kg																					
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
2,4,5-Trichlorophenol	6.11E+03	(1)	2.38E+04	(5)	4.78E+03	(9)	4.78E+03	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
2,4,6-Trichlorophenol	6.11E+01	(1)	2.38E+02	(5)	4.78E+01	(9)	4.78E+01	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
2,4-Dichlorophenol	1.83E+02	(1)	7.15E+02	(5)	4.60E+01	(9)	4.60E+01	-	<0.4016	<0.8027	<0.8008	<0.7992	<0.7947	<0.4001	<0.4025	<0.8038	<0.8046	<0.3999	<0.4003	<0.4015	<0.398
2,4-Dimethylphenol	1.22E+03	(1)	4.76E+03	(5)	3.07E+02	(9)	3.07E+02	-	<0.3012	<0.602	<0.6006	<0.5994	<0.596	<0.3001	<0.3019	<0.6028	<0.6034	<0.2999	<0.3002	<0.3011	<0.2985
2,4-Dinitrophenol	1.22E+02	(1)	4.76E+02	(5)	2.91E+01	(9)	2.91E+01	-	<0.4016	<0.8027	<0.8008	<0.7992	<0.7947	<0.4001	<0.4025	<0.8038	<0.8046	<0.3999	<0.4003	<0.4015	<0.398
2,4-Dinitrotoluene	1.57E+01	(1)	6.18E+01	(4)	1.04E+00	(9)	1.04E+00	-	<0.502	<1.0033	<1.001	<0.999	<0.9934	<0.5002	<0.5032	<1.0047	<1.0057	<0.4998	<0.5003	<0.5018	<0.4975
2,6-Dinitrotoluene	6.11E+01	(1)	2.38E+02	(5)	1.77E+01	(9)	1.77E+01	-	<0.502	<1.0033	<1.001	<0.999	<0.9934	<0.5002	<0.5032	<1.0047	<1.0057	<0.4998	<0.5003	<0.5018	<0.4975

Table 7
Aeration Basin Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 1-15 (1.5-2')	SWMU 1-16 (0-0.5')	SWMU 1-16 (1.5-2')	SWMU 1-17 (0-0.5')	SWMU 1-17 (1-1.5')	SWMU 1-18 (0-0.5')	SWMU 1-18 (1-1.5')	SWMU 1-19 (0-0.5')	SWMU 1-20 (0-0.5')	SWMU 1-20 (1.5-2')	SWMU 1-20 (10-12')	SWMU 1-20 (4-6')	SWMU 1-21 (0-0.5')
									1210811-013	1210811-014	1210811-015	1210811-016	1210811-017	1210858-001	1210858-002	1210858-003	1210692-001	1210692-003	1210692-005	1210692-004	1210858-004
									10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/16/2012	10/16/2012	10/16/2012	10/11/2012	10/11/2012	10/11/2012	10/11/2012	10/16/2012
2-Chloronaphthalene	6.11E+01	(1)	1.49E+02	(4)	4.01E-01	(9)	4.01E-01	-	<0.251	<0.5017	<0.5005	<0.4995	<0.4967	<0.2501	<0.2516	<0.5023	<0.5028	<0.2499	<0.2502	<0.2509	<0.2488
2-Chlorophenol	3.91E+02	(1)	1.55E+03	(5)	5.33E+01	(9)	5.33E+01	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
2-Methylphenol	3.10E+03	(2)	3.10E+04	(6)	2.67E+02	(9)	2.67E+02	-	<0.502	<1.0033	<1.001	<0.999	<0.9934	<0.5002	<0.5032	<1.0047	<1.0057	<0.4998	<0.5003	<0.5018	<0.4975
2-Nitroaniline	6.10E+02	(2)	6.00E+03	(6)	2.86E+01	(9)	2.86E+01	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
2-Nitrophenol	-	-	-	-	-	-	-	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
3,3´-Dichlorobenzidine	1.08E+01	(1)	4.26E+01	(4)	3.41E+00	(9)	3.41E+00	-	<0.251	<0.5017	<0.5005	<0.4995	<0.4967	<0.2501	<0.2516	<0.5023	<0.5028	<0.2499	<0.2502	<0.2509	<0.2488
3+4-Methylphenol	-	-	-	-	-	-	-	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
3-Nitroaniline	-	-	-	-	-	-	-	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
4,6-Dinitro-2-methylphenol	4.90E+00	(2)	4.90E+01	(6)	9.22E-01	(9)	9.22E-01	-	<0.502	<1.0033	<1.001	<0.999	<0.9934	<0.5002	<0.5032	<1.0047	<1.0057	<0.4998	<0.5003	<0.5018	<0.4975
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
4-Chloro-3-methylphenol	6.10E+03	(2)	6.20E+04	(6)	5.99E+02	(9)	5.99E+02	-	<0.502	<1.0033	<1.001	<0.999	<0.9934	<0.5002	<0.5032	<1.0047	<1.0057	<0.4998	<0.5003	<0.5018	<0.4975
4-Chloroaniline	2.40E+01	(3)	8.60E+01	(7)	5.99E-02	(9)	5.99E-02	-	<0.502	<1.0033	<1.001	<0.999	<0.9934	<0.5002	<0.5032	<1.0047	<1.0057	<0.4998	<0.5003	<0.5018	<0.4975
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
4-Nitroaniline	2.40E+02	(3)	8.60E+02	(7)	6.45E-01	(9)	6.45E-01	-	<0.4016	<0.8027	<0.8008	<0.7992	<0.7947	<0.4001	<0.4025	<0.8038	<0.8046	<0.3999	<0.4003	<0.4015	<0.398
4-Nitrophenol	-	-	-	-	-	-	-	-	<0.251	<0.5017	<0.5005	<0.4995	<0.4967	<0.2501	<0.2516	<0.5023	<0.5028	<0.2499	<0.2502	<0.2509	<0.2488
Acenaphthene	3.44E+03	(1)	1.86E+04	(5)	7.79E+03	(9)	3.44E+03	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Acenaphthylene	-	-	-	-	-	-	-	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Aniline	8.50E+02	(3)	3.00E+03	(7)	1.80E+00	(9)	1.80E+00	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Anthracene	1.72E+04	(1)	6.68E+04	(5)	1.25E+05	(9)	1.72E+04	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Azobenzene	5.10E+01	(3)	2.30E+02	(7)	3.69E-01	(9)	3.69E-01	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Benz(a)anthracene	1.48E+00	(1)	2.34E+01	(4)	3.61E+01	(9)	1.48E+00	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Benzo(a)pyrene	1.48E-01	(1)	2.34E+00	(4)	1.20E+01	(9)	1.48E-01	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Benzo(b)fluoranthene	1.48E+00	(1)	2.34E+01	(4)	1.22E+02	(9)	1.48E+00	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Benzo(k)fluoranthene	1.48E+01	(1)	2.34E+02	(4)	1.20E+03	(9)	1.48E+01	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Benzoic acid	2.40E+05	(2)	2.50E+06	(6)	6.45E+03	(9)	6.45E+03	-	<0.502	<1.0033	<1.001	<0.999	<0.9934	<0.5002	<0.5032	<1.0047	<1.0057	<0.4998	<0.5003	<0.5018	<0.4975
Benzyl alcohol	6.10E+03	(2)	6.20E+04	(6)	1.71E+02	(9)	1.71E+02	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Bis(2-chloroethoxy)methane	1.80E+02	(2)	1.80E+03	(6)	5.07E+00	(9)	5.07E+00	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Bis(2-chloroethyl)ether	2.68E+00	(1)	1.42E+01	(4)	1.21E-02	(9)	1.21E-02	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Bis(2-chloroisopropyl)ether	9.15E+01	(1)	4.54E+02	(4)	1.07E+00	(9)	1.07E+00	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Bis(2-ethylhexyl)phthalate	3.47E+02	(1)	1.37E+03	(4)	3.97E+03	(9)	3.47E+02	-	<0.502	<1.0033	<1.001	<0.999	<0.9934	<0.5002	<0.5032	<1.0047	<1.0057	<0.4998	<0.5003	<0.5018	<0.4975
Butyl benzyl phthalate	2.60E+03	(3)	9.10E+03	(7)	9.22E+01	(9)	9.22E+01	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Carbazole	-	-	-	-	-	-	-	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Chrysene	1.48E+02	(1)	2.34E+03	(4)	3.68E+03	(9)	1.48E+02	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Dibenz(a,h)anthracene	1.48E-01	(1)	2.34E+00	(4)	3.90E+01	(9)	1.48E-01	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Dibenzofuran	7.80E+01	(2)	1.00E+03	(6)	5.07E+01	(9)	5.07E+01	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Diethyl phthalate	4.89E+04	(1)	1.91E+05	(5)	4.45E+03	(9)	4.45E+03	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Dimethyl phthalate	6.11E+05	(1)	2.38E+06	(5)	3.71E+04	(9)	3.71E+04	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Di-n-butyl phthalate	6.11E+03	(1)	2.38E+04	(5)	3.21E+03	(9)	3.21E+03	-	<0.502	<1.0033	<1.001	<0.999	<0.9934	<0.5002	<0.5032	<1.0047	<1.0057	<0.4998	<0.5003	<0.5018	<0.4975
Di-n-octyl phthalate	-	-	-	-	-	-	-	-	<0.4016	<0.8027	<0.8008	<0.7992	<0.7947	<0.4001	<0.4025	<0.8038	<0.8046	<0.3999	<0.4003	<0.4015	<0.398
Fluoranthene	2.29E+03	(1)	8.91E+03	(5)	5.61E+04	(9)	2.29E+03	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Fluorene	2.29E+03	(1)	8.91E+03	(5)	9.36E+03	(9)	2.29E+03	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Hexachlorobenzene	3.04E+00	(1)	1.20E+01	(4)	1.83E+00	(9)	1.83E+00	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Hexachlorocyclopentadiene	3.67E+02	(1)	8.11E+02	(5)	2.43E+02	(9)	2.43E+02	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Hexachloroethane	4.28E+01	(1)	1.67E+02	(5)	3.77E+00	(9)	3.77E+00	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Indeno(1,2,3-cd)pyrene	1.48E+00	(1)	2.34E+01	(4)	3.98E+02	(9)	1.48E+00	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Isophorone	5.12E+03	(1)	4.75E+04	(5)	8.84E+01	(9)	8.84E+01	-	<0.502	<1.0033	<1.001	<0.999	<0.9934	<0.5002	<0.5032	<1.0047	<1.0057	<0.4998	<0.5003	<0.5018	<0.4975

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Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 1-15 (1.5-2')	SWMU 1-16 (0-0.5')	SWMU 1-16 (1.5-2')	SWMU 1-17 (0-0.5')	SWMU 1-17 (1-1.5')	SWMU 1-18 (0-0.5')	SWMU 1-18 (1-1.5')	SWMU 1-19 (0-0.5')	SWMU 1-20 (0-0.5')	SWMU 1-20 (1.5-2')	SWMU 1-20 (10-12')	SWMU 1-20 (4-6')	SWMU 1-21 (0-0.5')
									1210811-013	1210811-014	1210811-015	1210811-016	1210811-017	1210858-001	1210858-002	1210858-003	1210692-001	1210692-003	1210692-005	1210692-004	1210858-004
									10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/15/2012	10/16/2012	10/16/2012	10/16/2012	10/11/2012	10/11/2012	10/11/2012	10/11/2012	10/16/2012
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Nitrobenzene	5.35E+01	(1)	3.00E+02	(4)	2.88E-01	(9)	2.88E-01	-	<0.502	<1.0033	<1.001	<0.999	<0.9934	<0.5002	<0.5032	<1.0047	<1.0057	<0.4998	<0.5003	<0.5018	<0.4975
N-Nitrosodi-n-propylamine	6.90E-01	(3)	2.50E+00	(7)	3.23E-03	(9)	3.23E-03	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
N-Nitrosodiphenylamine	9.93E+02	(1)	3.91E+03	(4)	2.61E+02	(9)	2.61E+02	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Pentachlorophenol	8.94E+00	(1)	3.00E+01	(4)	5.90E+00	(9)	5.90E+00	-	<0.4016	<0.8027	<0.8008	<0.7992	<0.7947	<0.4001	<0.4025	<0.8038	<0.8046	<0.3999	<0.4003	<0.4015	<0.398
Phenanthrene	1.83E+03	(1)	7.15E+03	(5)	1.32E+04	(9)	1.83E+03	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Phenol	1.83E+04	(1)	6.88E+04	(5)	2.29E+03	(9)	2.29E+03	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Pyrene	1.72E+03	(1)	6.68E+03	(5)	4.12E+04	(9)	1.72E+03	-	<0.2008	<0.4013	<0.4004	<0.3996	<0.3974	<0.2001	<0.2013	<0.4019	<0.4023	<0.1999	<0.2001	<0.2007	<0.199
Pyridine	7.80E+01	(2)	1.00E+03	(6)	2.44E+00	(9)	2.44E+00	-	<0.502	<1.0033	<1.001	<0.999	<0.9934	<0.5002	<0.5032	<1.0047	<1.0057	<0.4998	<0.5003	<0.5018	<0.4975
Total Petroleum Hydrocarbons - (EPA Method 8015B) mg/kg																					
Diesel Range Organics (DRO)	1.00E+03	(11)	1.00E+03	(11)	1.00E+03	(11)	-	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Gasoline Range Organics (GRO)	-	-	-	-	-	-	-	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Motor Oil Range Organics (MRO)	3.00E+03	(12)	3.00E+03	(12)	3.00E+03	(12)	-	-	<48	<49	<50	<51	<49	<50	<50	<52	<50	<49	<50	<51	<52

-- No screening level or analytical result available

NMED - Risk Assessment Guidance for Site Investigations and Remediation (June 14, 2012)

EPA - Regional Screening Levels (May 2012)

(1) NMED Residential Screening Level

(2) EPA Residential Screening Level

(3) EPA Residential - Screening Levels (May 2012) multiplied by 10 because the constituent is listed as carcinogenic

(4) NMED Industrial Occupational Screening Level

(5) NMED Construction Worker Screening Level

(6) EPA Industrial - Screening Levels (May 2012)

(7) EPA Industrial - Screening Levels (May 2012) multiplied by 10

(8) SoilGW NMED Dilution Attenuation Factor (DAF) = 461

(9) SoilGW Risk-based EPA DAF = 461

(10) SoilGW MCL-based EPA DAF = 461

(11) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "uknown oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(12) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "waste oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(13) Background concentrations to be determined

Bold represents value above Residential Screening Level
yellow highlight represents value above Leachate (DAF) Screening Level
Bold with yellow - value exceeds Residential Screening Level and DAF

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-1 (0-0.5')	SWMU 14-1 (1.5-2')	SWMU 14-1 (10-12)	SWMU 14-1 (48-50')	SWMU 14-2 (0-0.5')	SWMU 14-2 (1.5-2.0')	SWMU 14-2 (16-18')	SWMU 14-2 (24-25')	SWMU 14-2 (8-10')	SWMU 14-3 (0-0.5')	SWMU 14-3 (1.5-2')	SWMU 14-3 (12-14')	SWMU 14-3 (25.5-26')
									1207748-001	1207748-002	1207748-003	1207900-006	1207917-005	1207917-006	1207917-009	1207917-010	1207917-007	1207900-001	1207900-002	1207900-004	1207900-005
									7/16/2012	7/16/2012	7/16/2012	7/18/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/18/2012	7/18/2012	7/18/2012	7/18/2012
Metals (mg/kg)																					
Antimony	3.13E+01	(1)	1.24E+02	(5)	3.05E+02	(9)	3.13E+01	-	<12.5	<12.5	<12.5	<12.5	4	3.6	4.7	3.3	0.82	4.8	<2.5	<12.5	<12.5
Arsenic	3.90E+00	(1)	1.77E+01	(4)	6.05E+00	(9)	3.90E+00	-	<12.5	<12.5	<12.5	<12.5	<12.5	<12.501	<12.5	<12.5	1.6	<12.5	<12.5	<12.5	<12.5
Barium	1.56E+04	(1)	4.35E+03	(5)	1.39E+05	(9)	4.35E+03	-	790	550	1100	750	700	470	520	460	400	920	560	350	630
Beryllium	1.56E+02	(1)	1.44E+02	(5)	2.66E+04	(9)	1.44E+02	-	0.61	0.89	0.69	1.4	0.68	0.76	1.3	1.1	0.58	0.77	0.65	0.67	1.1
Cadmium	7.03E+01	(1)	2.77E+02	(5)	6.33E+02	(9)	7.03E+01	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.1	<0.5	<0.1	<0.5	<0.5
Chromium III	1.17E+05	(1)	4.65E+05	(5)	4.54E+10	(9)	1.17E+05	-	6.8	11	11	20	8.8	12	18	18	76	11	19	110	17
Chromium VI	2.97E+00	(1)	6.31E+01	(4)	3.83E+00	(9)	2.97E+00	-	6.8	11	11	20	8.8	12	18	18	76	11	19	110	17
Cobalt	2.30E+01	(2)	3.00E+02	(6)	9.68E+01	(9)	2.30E+01	-	5.4	5.1	5	6.7	4.4	3.8	7.2	9.7	3.7	5.1	3.6	4.9	10
Cyanide	4.69E+01	(1)	1.86E+02	(5)	1.02E+02	(9)	4.69E+01	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.8	<0.5	<0.5
Iron	5.48E+04	(1)	2.17E+05	(5)	2.98E+05	(9)	5.48E+04	-	9000	17000	14000	23000	14000	11000	26000	19000	14000	13000	11000	14000	21000
Lead	4.00E+02	(1)	8.00E+02	(5)	6.45E+03	(10)	4.00E+02	-	3.6	4.6	2.5	2	3.3	4.4	1.2	<1.25	4.6	2.7	1.7	12	<1.25
Manganese	1.86E+03	(1)	4.40E+02	(5)	2.64E+04	(9)	4.40E+02	-	570	510	590	720	510	530	1100	980	400	600	400	570	1400
Mercury	1.56E+01	(1)	1.36E+01	(5)	1.51E+01	(9)	1.36E+01	-	0.038	0.015	<0.033	<0.033	0.01	0.024	<0.033	<0.033	0.29	0.15	0.23	0.28	<0.033
Nickel	1.56E+03	(1)	6.19E+03	(5)	2.20E+04	(9)	1.56E+03	-	6.1	8.3	7.6	16	6.2	7.3	16	17	6.6	8	6	8.5	17
Selenium	3.91E+02	(1)	1.55E+03	(5)	4.45E+02	(9)	3.91E+02	-	<12.5	<50	<12.5	<12.5	<12.5	<12.501	<12.5	<12.5	<2.5	<12.5	<2.5	<12.5	<12.5
Silver	3.91E+02	(1)	1.55E+03	(5)	7.22E+02	(9)	3.91E+02	-	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<0.25	<1.25	<0.25	<1.25	<1.25
Vanadium	3.91E+02	(1)	1.55E+03	(5)	8.42E+04	(9)	3.91E+02	-	17	26	24	9.8	31	21	22	52	20	23	18	31	24
Zinc	2.35E+04	(1)	9.29E+04	(5)	3.14E+05	(9)	2.35E+04	-	21	21	20	23	17	35	26	31	37	42	42	65	34
Volatile Organic Compounds - (EPA Method 8260) mg/kg																					
1,1,1,2-Tetrachloroethane	2.91E+01	(1)	1.61E+02	(4)	7.59E-01	(9)	7.59E-01	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
1,1,1-Trichloroethane	1.56E+04	(1)	1.48E+04	(5)	1.34E+03	(9)	1.34E+03	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
1,1,2,2-Tetrachloroethane	8.02E+00	(1)	4.35E+01	(4)	9.82E-02	(9)	9.82E-02	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
1,1,2-Trichloroethane	2.81E+00	(1)	1.33E+01	(4)	5.14E-02	(9)	5.14E-02	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
1,1-Dichloroethane	6.45E+01	(1)	3.59E+02	(4)	2.75E+00	(9)	2.75E+00	-	<0.001	<0.001	0.000229	<0.001	<0.1	<2	<0.001	<0.001	<2	<0.001	<0.1	<2	<0.001
1,1-Dichloroethene	4.49E+02	(1)	4.32E+02	(5)	5.36E+01	(9)	5.36E+01	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
1,1-Dichloropropene	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.1	<2	<0.001	<0.001	<2	<0.001	<0.1	<2	<0.001
1,2,3-Trichlorobenzene	4.90E+01	(2)	4.90E+02	(6)	6.92E+00	(9)	6.92E+00	-	<0.001	<0.001	<0.001	<0.001	<0.1	<2	<0.001	<0.001	<2	<0.001	<0.1	<2	<0.001
1,2,3-Trichloropropane	4.97E-02	(1)	7.23E+00	(5)	1.15E-03	(9)	1.15E-03	-	<0.001	<0.001	<0.001	<0.001	<0.1	<2	<0.001	<0.001	<2	<0.001	<0.1	<2	<0.001
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
1,2,4-Trimethylbenzene	6.20E+01	(2)	2.60E+02	(6)	9.68E+00	(9)	9.68E+00	-	<0.001	<0.001	<0.001	<0.001	<0.05	1.8	<0.001	0.011	6.2	<0.001	<0.05	4.3	<0.001
1,2-Dibromo-3-chloropropane	1.86E+00	(1)	1.08E+00	(4)	5.07E-04	(9)	5.07E-04	-	<0.002	<0.002	<0.002	<0.002	<0.1	<2	<0.002	<0.002	<2	<0.002	<0.1	<2	<0.002
1,2-Dibromoethane (EDB)	5.88E-01	(1)	3.22E+00	(4)	7.10E-03	(9)	7.10E-03	-	<0.001	<0.001	<0.001	<0.001	<0.05	0.17	<0.001	<0.001	0.29	<0.001	<0.05	0.31	<0.001
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
1,2-Dichloroethane (EDC)	7.89E+00	(1)	4.35E+01	(4)	1.64E-01	(9)	1.64E-01	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
1,2-Dichloropropane	1.52E+01	(1)	2.50E+01	(5)	4.94E-01	(9)	4.94E-01	-	<0.002	<0.002	<0.002	<0.002	<0.05	<1	<0.002	<0.002	0.16	<0.002	<0.05	<1	<0.002
1,3,5-Trimethylbenzene	7.80E+02	(2)	1.00E+04	(6)	5.53E+01	(9)	5.53E+01	-	<0.001	<0.001	<0.001	<0.001	<0.05	1.1	<0.001	0.00112	0.39	<0.001	<0.05	0.099	<0.001
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
1,3-Dichloropropane	1.60E+03	(2)	2.00E+04	(6)	4.56E+01	(9)	4.56E+01	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	0.000968	<0.003	0.000458	<0.004	0.065	4.7	<0.004	0.025	16	<0.004	0.015	16	<0.004
2,2-Dichloropropane	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.1	<2	<0.001	<0.001	<2	<0.001	<0.1	<2	<0.001
2-Butanone (MEK)	3.71E+04	(1)	8.43E+04	(5)	5.87E+02	(9)	5.87E+02	-	<0.002	<0.002	<0.002	<0.002	<0.5	<10	<0.005	0.00176	<10	<0.002	<0.5	<10	<0.002
2-Chlorotoluene	1.56E+03	(1)	6.19E+03	(5)	2.57E+02	(9)	2.57E+02	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
2-Hexanone	9.38E+02	(1)	9.73E+02	(5)	3.53E+03	(9)	9.38E+02	-	<0.002	<0.002	<0.002	<0.002	<0.5	<10	<0.005	<0.005	<10	<0.002	<0.5	<10	<0.002
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	0.00119	<0.003	<0.004	<0.004	0.082	5.6	<0.004	0.0197	17	<0.004	0.018	16	<0.004
4-Chlorotoluene	1.60E+03	(2)	2.00E+04	(6)	8.30E+01	(9)	8.30E+01	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
4-Isopropyltoluene	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.05	0.3	<0.001	0.00112	0.45	<0.001	<0.05	0.39	<0.001

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-1 (0-0.5')	SWMU 14-1 (1.5-2')	SWMU 14-1 (10-12')	SWMU 14-1 (48-50')	SWMU 14-2 (0-0.5')	SWMU 14-2 (1.5-2.0')	SWMU 14-2 (16-18')	SWMU 14-2 (24-25')	SWMU 14-2 (8-10')	SWMU 14-3 (0-0.5')	SWMU 14-3 (1.5-2')	SWMU 14-3 (12-14')	SWMU 14-3 (25.5-26')
									1207748-001	1207748-002	1207748-003	1207900-006	1207917-005	1207917-006	1207917-009	1207917-010	1207917-007	1207900-001	1207900-002	1207900-004	1207900-005
									7/16/2012	7/16/2012	7/16/2012	7/18/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/18/2012	7/18/2012	7/18/2012	7/18/2012
4-Methyl-2-pentanone	5.30E+03	(2)	5.30E+04	(6)	1.06E+02	(9)	1.06E+02	-	<0.002	<0.002	<0.002	<0.002	<0.5	<10	<0.005	<0.005	<10	<0.002	<0.5	<10	<0.002
Acetone	6.66E+04	(1)	2.21E+05	(5)	1.78E+03	(9)	1.78E+03	-	0.00305	0.003	0.00688	0.0065	<0.75	3.9	0.00794	0.0121	8.5	0.00398	0.027	9.3	0.00437
Benzene	1.54E+01	(1)	8.47E+01	(4)	7.96E-01	(9)	7.96E-01	-	<0.001	<0.001	<0.001	<0.001	<0.05	0.1	<0.001	<0.001	0.22	<0.001	0.0068	0.14	<0.001
Bromobenzene	3.00E+02	(2)	1.80E+03	(6)	1.66E+01	(9)	1.66E+01	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
Bromodichloromethane	5.41E+00	(1)	3.01E+01	(4)	1.25E-01	(9)	1.25E-01	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
Bromoform	6.16E+02	(1)	2.42E+03	(4)	2.78E+02	(9)	2.78E+02	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
Bromomethane	1.65E+01	(1)	1.64E+01	(5)	8.86E-01	(9)	8.86E-01	-	-	-	-	-	<0.15	<3	-	-	<3	-	<0.15	<3	-
Carbon disulfide	1.53E+03	(1)	1.58E+03	(5)	1.30E+02	(9)	1.30E+02	-	<0.002	<0.002	<0.002	<0.002	0.025	<10	<0.005	<0.005	<10	<0.002	<0.5	<10	<0.002
Carbon tetrachloride	1.08E+01	(1)	5.98E+01	(4)	7.39E-01	(9)	7.39E-01	-	<0.001	<0.001	<0.001	<0.001	<0.1	<2	<0.001	<0.001	<2	<0.001	<0.1	<2	<0.001
Chlorobenzene	3.76E+02	(1)	4.06E+02	(5)	2.27E+01	(9)	2.27E+01	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
Chloroethane	2.98E+04	(1)	2.61E+04	(5)	2.48E+03	(9)	2.48E+03	-	<0.001	<0.001	<0.001	<0.001	<0.1	<2	<0.001	<0.001	<2	<0.001	<0.1	<2	<0.001
Chloroform	5.86E+00	(1)	3.27E+01	(4)	2.12E-01	(9)	2.12E-01	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
Chloromethane	2.75E+02	(1)	2.41E+02	(5)	2.03E+01	(9)	2.03E+01	-	<0.001	<0.001	<0.001	0.000764	0.013	<3	<0.001	<0.001	<3	<0.001	<0.15	<3	0.000433
cis-1,2-DCE	1.56E+02	(1)	6.19E+02	(5)	8.47E+00	(9)	8.47E+00	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
cis-1,3-Dichloropropene	3.37E+01	(1)	1.77E+02	(4)	5.71E-01	(9)	5.71E-01	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
Dibromochloromethane	1.21E+01	(1)	6.24E+01	(4)	1.52E-01	(9)	1.52E-01	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
Dibromomethane	5.16E+01	(1)	2.54E+02	(4)	7.89E-01	(9)	7.89E-01	-	<0.001	<0.001	<0.001	<0.001	<0.1	<2	<0.001	<0.001	<2	<0.001	<0.1	<2	<0.001
Dichlorodifluoromethane	1.68E+02	(1)	1.49E+02	(5)	1.71E+02	(9)	1.49E+02	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
Ethylbenzene	6.84E+01	(1)	3.78E+02	(4)	5.98E+00	(9)	5.98E+00	-	<0.001	<0.001	<0.001	<0.001	<0.05	0.19	<0.001	0.000973	1.1	<0.001	<0.05	0.84	<0.001
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<0.001	<0.001	<0.001	<0.001	<0.1	<2	<0.001	<0.001	<2	<0.001	<0.1	<2	<0.001
Isopropylbenzene	2.43E+03	(1)	2.81E+03	(5)	3.99E+02	(9)	3.99E+02	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	0.000758	0.33	<0.001	<0.05	0.28	<0.001
Methyl tert-butyl ether (MTBE)	9.01E+02	(1)	4.89E+03	(4)	1.11E+01	(9)	1.11E+01	-	<0.001	<0.001	0.0131	<0.001	<0.05	<1	<0.002	<0.002	<1	<0.001	<0.05	<1	<0.001
Methylene chloride	4.09E+02	(1)	1.12E+03	(5)	1.90E+01	(9)	1.90E+01	-	0.00171	0.00159	0.00197	<0.002	<0.15	<3	<0.005	<0.005	<3	<0.002	0.0078	0.14	<0.002
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	<0.001	<0.001	<0.001	<0.001	<0.1	1.2	<0.001	0.00334	3	<0.001	0.013	2.2	<0.001
n-Butylbenzene	3.90E+03	(2)	5.10E+04	(6)	1.15E+03	(9)	1.15E+03	-	<0.001	<0.001	<0.001	<0.001	<0.05	0.27	<0.001	0.00168	0.66	<0.001	<0.05	0.67	<0.001
n-Propylbenzene	3.40E+03	(2)	2.10E+04	(6)	4.56E+02	(9)	4.56E+02	-	<0.001	<0.001	<0.001	<0.001	<0.05	0.16	<0.001	0.00203	0.69	<0.001	<0.05	0.56	<0.001
sec-Butylbenzene	-	-	-	-	-	-	-	-	<0.001	<0.001	0.000388	<0.001	<0.05	0.15	<0.001	0.000903	0.34	<0.001	<0.05	0.29	<0.001
Styrene	7.28E+03	(1)	9.99E+03	(5)	6.40E+02	(9)	6.40E+02	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
tert-Butylbenzene	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
Tetrachloroethene (PCE)	7.02E+00	(1)	3.66E+01	(4)	1.98E-01	(9)	1.98E-01	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
Toluene	5.27E+03	(1)	1.34E+04	(5)	5.84E+02	(9)	5.84E+02	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
trans-1,2-DCE	2.70E+02	(1)	2.73E+02	(5)	1.24E+01	(9)	1.24E+01	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
Trichloroethene (TCE)	8.77E+00	(1)	7.68E+00	(5)	4.85E-01	(9)	4.85E-01	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
Trichlorofluoromethane	1.41E+03	(1)	1.30E+03	(5)	4.10E+02	(9)	4.10E+02	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	0.000331	<1	<0.001	<0.05	<1	<0.001
Vinyl chloride	7.28E-01	(1)	2.61E+01	(4)	2.50E-02	(9)	2.50E-02	-	<0.001	<0.001	<0.001	<0.001	<0.05	<1	<0.001	<0.001	<1	<0.001	<0.05	<1	<0.001
Xylenes, Total	8.14E+02	(1)	7.43E+02	(5)	7.21E+01	(9)	7.21E+01	-	<0.002	<0.002	<0.002	<0.002	<0.1	0.34	<0.003	<0.003	1	<0.002	<0.1	0.34	<0.002
Semi Volatile Organics - (EPA Method 8270) mg/kg																					
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	<0.997	<1.001	0.49	<0.199	<0.198	5.9	<0.199	<0.2	16	<1.003	<0.998	9.2	<0.199
2,4,5-Trichlorophenol	6.11E+03	(1)	2.38E+04	(5)	4.78E+03	(9)	4.78E+03	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
2,4,6-Trichlorophenol	6.11E+01	(1)	2.38E+02	(5)	4.78E+01	(9)	4.78E+01	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
2,4-Dichlorophenol	1.83E+02	(1)	7.15E+02	(5)	4.60E+01	(9)	4.60E+01	-	<1.993	<2.002	<0.399	<0.398	<0.397	<1.991	<0.398	<0.4	<2.024	<2.005	<1.995	<2.006	<0.397
2,4-Dimethylphenol	1.22E+03	(1)	4.76E+03	(5)	3.07E+02	(9)	3.07E+02	-	<1.495	<1.502	<0.299	<0.298	<0.298	<1.494	<0.299	<0.3	<1.518	<1.504	<1.497	<1.505	<0.298
2,4-Dinitrophenol	1.22E+02	(1)	4.76E+02	(5)	2.91E+01	(9)	2.91E+01	-	0.45	0.45	<0.399	0.091	<0.397	0.56	<0.398	0.093	<2.024	0.46	0.45	<2.006	<0.397

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-1 (0-0.5)	SWMU 14-1 (1.5-2)	SWMU 14-1 (10-12)	SWMU 14-1 (48-50')	SWMU 14-2 (0-0.5')	SWMU 14-2 (1.5-2.0')	SWMU 14-2 (16-18')	SWMU 14-2 (24-25')	SWMU 14-2 (8-10')	SWMU 14-3 (0-0.5')	SWMU 14-3 (1.5-2')	SWMU 14-3 (12-14')	SWMU 14-3 (25.5-26')
									1207748-001	1207748-002	1207748-003	1207900-006	1207917-005	1207917-006	1207917-009	1207917-010	1207917-007	1207900-001	1207900-002	1207900-004	1207900-005
									7/16/2012	7/16/2012	7/16/2012	7/18/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/18/2012	7/18/2012	7/18/2012	7/18/2012
2,4-Dinitrotoluene	1.57E+01	(1)	6.18E+01	(4)	1.04E+00	(9)	1.04E+00	-	<2.492	<2.503	<0.498	<0.497	<0.496	<2.489	<0.498	<0.5	<2.53	<2.507	<2.494	<2.508	<0.497
2,6-Dinitrotoluene	6.11E+01	(1)	2.38E+02	(5)	1.77E+01	(9)	1.77E+01	-	<2.492	<2.503	<0.498	<0.497	<0.496	<2.489	<0.498	<0.5	<2.53	<2.507	<2.494	<2.508	<0.497
2-Chloronaphthalene	6.11E+01	(1)	1.49E+02	(4)	4.01E-01	(9)	4.01E-01	-	<1.246	<1.251	<0.249	<0.249	<0.248	<1.245	<0.249	<0.25	<1.265	<1.253	<1.247	<1.254	<0.248
2-Chlorophenol	3.91E+02	(1)	1.55E+03	(5)	5.33E+01	(9)	5.33E+01	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	<0.997	<1.001	<0.199	<0.199	<0.198	6.4	<0.199	<0.2	16	<1.003	<0.998	6	<0.199
2-Methylphenol	3.10E+03	(2)	3.10E+04	(6)	2.67E+02	(9)	2.67E+02	-	<2.492	<2.503	<0.498	<0.497	<0.496	<2.489	<0.498	<0.5	<2.53	<2.507	<2.494	<2.508	<0.497
2-Nitroaniline	6.10E+02	(2)	6.00E+03	(6)	2.86E+01	(9)	2.86E+01	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
2-Nitrophenol	-	-	-	-	-	-	-	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
3,3´-Dichlorobenzidine	1.08E+01	(1)	4.26E+01	(4)	3.41E+00	(9)	3.41E+00	-	<1.246	<1.251	<0.249	<0.249	<0.248	<1.245	<0.249	<0.25	<1.265	<1.253	<1.247	<1.254	<0.248
3+4-Methylphenol	-	-	-	-	-	-	-	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
3-Nitroaniline	-	-	-	-	-	-	-	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
4,6-Dinitro-2-methylphenol	4.90E+00	(2)	4.90E+01	(6)	9.22E-01	(9)	9.22E-01	-	<2.492	<2.503	<0.498	<0.497	<0.496	<2.489	<0.498	<0.5	<2.53	<2.507	<2.494	<2.508	<0.497
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
4-Chloro-3-methylphenol	6.10E+03	(2)	6.20E+04	(6)	5.99E+02	(9)	5.99E+02	-	<2.492	<2.503	<0.498	<0.497	<0.496	<2.489	<0.498	<0.5	<2.53	<2.507	<2.494	<2.508	<0.497
4-Chloroaniline	2.40E+01	(3)	8.60E+01	(7)	5.99E-02	(9)	5.99E-02	-	<2.492	<2.503	<0.498	<0.497	<0.496	<2.489	<0.498	<0.5	<2.53	<2.507	<2.494	<2.508	<0.497
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
4-Nitroaniline	2.40E+02	(3)	8.60E+02	(7)	6.45E-01	(9)	6.45E-01	-	<1.993	<2.002	<0.399	<0.398	<0.397	<1.991	<0.398	<0.4	<2.024	<2.005	<1.995	<2.006	<0.397
4-Nitrophenol	-	-	-	-	-	-	-	-	<1.246	<1.251	<0.249	<0.249	<0.248	<1.245	<0.249	<0.25	<1.265	<1.253	<1.247	<1.254	<0.248
Acenaphthene	3.44E+03	(1)	1.86E+04	(5)	7.79E+03	(9)	3.44E+03	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Acenaphthylene	-	-	-	-	-	-	-	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Aniline	8.50E+02	(3)	3.00E+03	(7)	1.80E+00	(9)	1.80E+00	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Anthracene	1.72E+04	(1)	6.68E+04	(5)	1.25E+05	(9)	1.72E+04	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Azobenzene	5.10E+01	(3)	2.30E+02	(7)	3.69E-01	(9)	3.69E-01	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Benz(a)anthracene	1.48E+00	(1)	2.34E+01	(4)	3.61E+01	(9)	1.48E+00	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Benzo(a)pyrene	1.48E-01	(1)	2.34E+00	(4)	1.20E+01	(9)	1.48E-01	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Benzo(b)fluoranthene	1.48E+00	(1)	2.34E+01	(4)	1.22E+02	(9)	1.48E+00	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Benzo(k)fluoranthene	1.48E+01	(1)	2.34E+02	(4)	1.20E+03	(9)	1.48E+01	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Benzoic acid	2.40E+05	(2)	2.50E+06	(6)	6.45E+03	(9)	6.45E+03	-	<2.492	<2.503	<0.498	<0.497	<0.496	<2.489	<0.498	0.088	<2.53	<2.507	0.52	1.7	<0.497
Benzyl alcohol	6.10E+03	(2)	6.20E+04	(6)	1.71E+02	(9)	1.71E+02	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Bis(2-chloroethoxy)methane	1.80E+02	(2)	1.80E+03	(6)	5.07E+00	(9)	5.07E+00	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Bis(2-chloroethyl)ether	2.68E+00	(1)	1.42E+01	(4)	1.21E-02	(9)	1.21E-02	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Bis(2-chloroisopropyl)ether	9.15E+01	(1)	4.54E+02	(4)	1.07E+00	(9)	1.07E+00	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Bis(2-ethylhexyl)phthalate	3.47E+02	(1)	1.37E+03	(4)	3.97E+03	(9)	3.47E+02	-	<2.492	<2.503	<0.498	<0.497	<0.496	<2.489	0.11	<0.5	<2.53	<2.507	<2.494	<2.508	<0.497
Butyl benzyl phthalate	2.60E+03	(3)	9.10E+03	(7)	9.22E+01	(9)	9.22E+01	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Carbazole	-	-	-	-	-	-	-	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Chrysene	1.48E+02	(1)	2.34E+03	(4)	3.68E+03	(9)	1.48E+02	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Dibenz(a,h)anthracene	1.48E-01	(1)	2.34E+00	(4)	3.90E+01	(9)	1.48E-01	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Dibenzofuran	7.80E+01	(2)	1.00E+03	(6)	5.07E+01	(9)	5.07E+01	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Diethyl phthalate	4.89E+04	(1)	1.91E+05	(5)	4.45E+03	(9)	4.45E+03	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Dimethyl phthalate	6.11E+05	(1)	2.38E+06	(5)	3.71E+04	(9)	3.71E+04	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Di-n-butyl phthalate	6.11E+03	(1)	2.38E+04	(5)	3.21E+03	(9)	3.21E+03	-	<2.492	<2.503	<0.498	<0.497	<0.496	<2.489	<0.498	<0.5	<2.53	<2.507	<2.494	<2.508	<0.497
Di-n-octyl phthalate	-	-	-	-	-	-	-	-	<1.246	<1.251	<0.249	<0.249	<0.248	<1.245	<0.249	<0.25	<1.265	<1.253	<1.247	<1.254	<0.248
Fluoranthene	2.29E+03	(1)	8.91E+03	(5)	5.61E+04	(9)	2.29E+03	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Fluorene	2.29E+03	(1)	8.91E+03	(5)	9.36E+03	(9)	2.29E+03	-	<0.997	<1.001	<0.199	<0.199	<0.198	1.8	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Hexachlorobenzene	3.04E+00	(1)	1.20E+01	(4)	1.83E+00	(9)	1.83E+00	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Hexachlorocyclopentadiene	3.67E+02	(1)	8.11E+02	(5)	2.43E+02	(9)	2.43E+02	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-1 (0-0.5')	SWMU 14-1 (1.5-2')	SWMU 14-1 (10-12')	SWMU 14-1 (48-50')	SWMU 14-2 (0-0.5')	SWMU 14-2 (1.5-2.0')	SWMU 14-2 (16-18')	SWMU 14-2 (24-25')	SWMU 14-2 (8-10')	SWMU 14-3 (0-0.5')	SWMU 14-3 (1.5-2')	SWMU 14-3 (12-14')	SWMU 14-3 (25.5-26')
									1207748-001	1207748-002	1207748-003	1207900-006	1207917-005	1207917-006	1207917-009	1207917-010	1207917-007	1207900-001	1207900-002	1207900-004	1207900-005
									7/16/2012	7/16/2012	7/16/2012	7/18/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/18/2012	7/18/2012	7/18/2012	7/18/2012
Hexachloroethane	4.28E+01	(1)	1.67E+02	(5)	3.77E+00	(9)	3.77E+00	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Indeno(1,2,3-cd)pyrene	1.48E+00	(1)	2.34E+01	(4)	3.98E+02	(9)	1.48E+00	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Isophorone	5.12E+03	(1)	4.75E+04	(5)	8.84E+01	(9)	8.84E+01	-	<2.492	<2.503	<0.498	<0.497	<0.496	<2.489	<0.498	<0.5	<2.53	<2.507	<2.494	<2.508	<0.497
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	<0.997	<1.001	<0.199	<0.199	<0.198	1	<0.199	<0.2	2.5	<1.003	<0.998	0.71	<0.199
Nitrobenzene	5.35E+01	(1)	3.00E+02	(4)	2.88E-01	(9)	2.88E-01	-	<2.492	<2.503	<0.498	<0.497	<0.496	<2.489	<0.498	<0.5	<2.53	<2.507	<2.494	<2.508	<0.497
N-Nitrosodi-n-propylamine	6.90E-01	(3)	2.50E+00	(7)	3.23E-03	(9)	3.23E-03	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
N-Nitrosodiphenylamine	9.93E+02	(1)	3.91E+03	(4)	2.61E+02	(9)	2.61E+02	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Pentachlorophenol	8.94E+00	(1)	3.00E+01	(4)	5.90E+00	(9)	5.90E+00	-	<1.993	<2.002	<0.399	<0.398	<0.397	<1.991	<0.398	<0.4	<2.024	<2.005	<1.995	<2.006	<0.397
Phenanthrene	1.83E+03	(1)	7.15E+03	(5)	1.32E+04	(9)	1.83E+03	-	<0.997	<1.001	0.57	<0.199	<0.198	3.2	<0.199	<0.2	3	<1.003	<0.998	2.2	<0.199
Phenol	1.83E+04	(1)	6.88E+04	(5)	2.29E+03	(9)	2.29E+03	-	<0.997	<1.001	<0.199	<0.199	<0.198	<0.996	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Pyrene	1.72E+03	(1)	6.68E+03	(5)	4.12E+04	(9)	1.72E+03	-	<0.997	<1.001	<0.199	<0.199	<0.198	0.93	<0.199	<0.2	<1.012	<1.003	<0.998	<1.003	<0.199
Pyridine	7.80E+01	(2)	1.00E+03	(6)	2.44E+00	(9)	2.44E+00	-	<2.492	<2.503	<0.498	<0.497	<0.496	<2.489	<0.498	<0.5	<2.53	<2.507	<2.494	<2.508	<0.497
Total Petroleum Hydrocarbons - (EPA Method 8015B) mg/kg																					
Diesel Range Organics (DRO)	1.00E+03	(11)	1.00E+03	(11)	1.00E+03	(11)	-	-	33	30	220	<10	53	**6200**	34	<10	**3300**	640	280	920	<10
Gasoline Range Organics (GRO)	-	-	-	-	-	-	-	-	<5	<5	1.7	<5	2.8	150	1.3	<5	210	<20	<10	90	<5
Motor Oil Range Organics (MRO)	3.00E+03	(12)	3.00E+03	(12)	3.00E+03	(12)	-	-	<49	<50	<50	<51	<50	<980	<48	<51	<974	<995	310	<964	<49

-- No screening level or analytical result available

NMED - Risk Assessment Guidance for Site Investigations and Remediation (June 14, 2012)

EPA - Regional Screening Levels (November 2012)

(1) NMED Residential Screening Level

(2) EPA Residential Screening Level

(3) EPA Residential - Screening Levels (November 2012) multiplied by 10 because the constituent is listed as carcinogenic

(4) NMED Industrial Occupational Screening Level

(5) NMED Construction Worker Screening Level

(6) EPA Industrial - Screening Levels (Nov. 2012)

(7) EPA Industrial - Screening Levels (Nov. 2012) multiplied by 10

(8) SoilGW NMED Dilution Attenuation Factor (DAF) = 461

(9) SoilGW Risk-based EPA DAF = 461

(10) SoilGW MCL-based EPA DAF = 461

(11) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "uknown oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(12) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "waste oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(13) Background concentrations to be determined.

Bold represents value above Residential Screening Level

yellow highlight represents value above Leachate (DAF) Screening Level

Bold with yellow - value exceeds Residential Screening Level and

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-3 (8-10')	SWMU 14-4 (0-0.5')	SWMU 14-4 (1.5-2.0')	SWMU 14-4 (10-12')	SWMU 14-4 (19.5-20')	SWMU 14-5 (0-0.5')	SWMU 14-5 (1.5-2.0')	SWMU 14-6 (0-0.5')	SWMU 14-6 (1.5-2')	SWMU 14-6 (10-12')	SWMU 14-6 (17-18')	SWMU 14-7 (0-0.5')	SWMU 14-7 (1.5-2')
									1207900-003	1207917-001	1207917-002	1207917-003	1207917-004	1207940-016	1207940-018	1210582-001	1210582-002	1210582-003	1210582-004	1207922-006	1207922-007
									7/18/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/19/2012	7/19/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	7/18/2012	7/18/2012
Metals (mg/kg)																					
Antimony	3.13E+01	(1)	1.24E+02	(5)	3.05E+02	(9)	3.13E+01	-	<12.5	<2.5	<2.5	<12.5	<12.5	<12.5	3.4	<12.5	<12.5	<12.5	<12.5	5.3	<12.501
Arsenic	3.90E+00	(1)	1.77E+01	(4)	6.05E+00	(9)	3.90E+00	-	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.501
Barium	1.56E+04	(1)	4.35E+03	(5)	1.39E+05	(9)	4.35E+03	-	380	870	870	460	480	490	340	350	330	340	290	650	550
Beryllium	1.56E+02	(1)	1.44E+02	(5)	2.66E+04	(9)	1.44E+02	-	0.8	0.33	0.51	0.86	1.3	0.68	0.61	1	0.78	0.83	0.87	0.76	0.68
Cadmium	7.03E+01	(1)	2.77E+02	(5)	6.33E+02	(9)	7.03E+01	-	<0.5	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium III	1.17E+05	(1)	4.65E+05	(5)	4.54E+10	(9)	1.17E+05	-	100	3.4	5.2	12	22	63	11	9.7	23	9.1	8.9	9.6	7.1
Chromium VI	2.97E+00	(1)	6.31E+01	(4)	3.83E+00	(9)	2.97E+00	-	100	3.4	5.2	12	22	63	11	9.7	23	9.1	8.9	9.6	7.1
Cobalt	2.30E+01	(2)	3.00E+02	(6)	9.68E+01	(9)	2.30E+01	-	5.6	2.5	2.7	5	8	5.3	4.6	5	4.5	4.7	5.6	4.1	3.7
Cyanide	4.69E+01	(1)	1.86E+02	(5)	1.02E+02	(9)	4.69E+01	-	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	<0.3	<0.3	<0.3	<0.3	<0.5	<0.5
Iron	5.48E+04	(1)	2.17E+05	(5)	2.98E+05	(9)	5.48E+04	-	14000	3200	7500	16000	23000	18000	13000	15000	13000	13000	16000	15000	11000
Lead	4.00E+02	(1)	8.00E+02	(5)	6.45E+03	(10)	4.00E+02	-	11	<0.25	0.37	2.4	1.4	14	2.5	6.4	5.6	4.5	2.9	3.5	3.2
Manganese	1.86E+03	(1)	4.40E+02	(5)	2.64E+04	(9)	4.40E+02	-	350	320	340	720	1000	550	450	420	370	340	1100	600	1100
Mercury	1.56E+01	(1)	1.36E+01	(5)	1.51E+01	(9)	1.36E+01	-	0.65	0.014	0.017	<0.033	<0.033	0.27	0.011	<0.033	0.095	<0.033	<0.033	0.0068	<0.033
Nickel	1.56E+03	(1)	6.19E+03	(5)	2.20E+04	(9)	1.56E+03	-	9.3	3.1	4.4	8.6	17	9.8	7.1	8.2	7.1	7.6	11	6.8	5.6
Selenium	3.91E+02	(1)	1.55E+03	(5)	4.45E+02	(9)	3.91E+02	-	<12.5	<2.5	<2.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.501
Silver	3.91E+02	(1)	1.55E+03	(5)	7.22E+02	(9)	3.91E+02	-	<1.25	<0.25	<0.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25
Vanadium	3.91E+02	(1)	1.55E+03	(5)	8.42E+04	(9)	3.91E+02	-	29	17	13	25	15	26	26	17	23	21	<12.5	22	18
Zinc	2.35E+04	(1)	9.29E+04	(5)	3.14E+05	(9)	2.35E+04	-	67	8.3	10	22	25	190	20	17	26	16	17	30	12
Volatile Organic Compounds - (EPA Method 8260) mg/kg																					
1,1,1,2-Tetrachloroethane	2.91E+01	(1)	1.61E+02	(4)	7.59E-01	(9)	7.59E-01	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
1,1,1-Trichloroethane	1.56E+04	(1)	1.48E+04	(5)	1.34E+03	(9)	1.34E+03	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
1,1,2,2-Tetrachloroethane	8.02E+00	(1)	4.35E+01	(4)	9.82E-02	(9)	9.82E-02	-	<1	<0.001	<0.001	<1	<0.001	0.00104	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
1,1,2-Trichloroethane	2.81E+00	(1)	1.33E+01	(4)	5.14E-02	(9)	5.14E-02	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
1,1-Dichloroethane	6.45E+01	(1)	3.59E+02	(4)	2.75E+00	(9)	2.75E+00	-	<2	<0.001	<0.001	<2	<0.001	<0.001	<0.1	<0.001	<0.0008	<1	<0.0011	<2	<0.001
1,1-Dichloroethene	4.49E+02	(1)	4.32E+02	(5)	5.36E+01	(9)	5.36E+01	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
1,1-Dichloropropene	-	-	-	-	-	-	-	-	<2	<0.001	<0.001	<2	<0.001	<0.001	<0.1	<0.001	<0.0008	<1	<0.0011	<2	<0.001
1,2,3-Trichlorobenzene	4.90E+01	(2)	4.90E+02	(6)	6.92E+00	(9)	6.92E+00	-	<2	<0.001	<0.001	<2	<0.001	<0.001	<0.1	<0.001	<0.0008	<1	<0.0011	<2	<0.001
1,2,3-Trichloropropane	4.97E-02	(1)	7.23E+00	(5)	1.15E-03	(9)	1.15E-03	-	<2	<0.001	<0.001	<2	<0.001	<0.001	<0.1	<0.001	<0.0008	<1	<0.0011	<2	<0.001
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
1,2,4-Trimethylbenzene	6.20E+01	(2)	2.60E+02	(6)	9.68E+00	(9)	9.68E+00	-	6.2	<0.001	<0.001	7.8	<0.001	<0.001	<0.05	0.00104	<0.0008	13	0.00148	0.32	0.00562
1,2-Dibromo-3-chloropropane	1.86E+00	(1)	1.08E+00	(4)	5.07E-04	(9)	5.07E-04	-	<2	<0.002	<0.002	<2	<0.002	<0.002	<0.1	<0.001	<0.0008	<1	<0.0011	0.18	0.000593
1,2-Dibromoethane (EDB)	5.88E-01	(1)	3.22E+00	(4)	7.10E-03	(9)	7.10E-03	-	0.36	<0.001	<0.001	0.3	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	0.22	<0.001
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
1,2-Dichloroethane (EDC)	7.89E+00	(1)	4.35E+01	(4)	1.64E-01	(9)	1.64E-01	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
1,2-Dichloropropane	1.52E+01	(1)	2.50E+01	(5)	4.94E-01	(9)	4.94E-01	-	0.17	<0.002	<0.002	0.15	<0.002	<0.002	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.002
1,3,5-Trimethylbenzene	7.80E+02	(2)	1.00E+04	(6)	5.53E+01	(9)	5.53E+01	-	0.49	<0.001	<0.001	1.7	<0.001	<0.001	<0.05	<0.001	<0.0008	4.2	<0.0011	0.19	0.00487
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
1,3-Dichloropropane	1.60E+03	(2)	2.00E+04	(6)	4.56E+01	(9)	4.56E+01	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	18	<0.004	<0.003	45	<0.004	<0.005	0.021	<0.004	<0.0032	14	<0.0043	0.66	0.00502
2,2-Dichloropropane	-	-	-	-	-	-	-	-	<2	<0.001	<0.001	<2	<0.001	<0.001	<0.1	<0.001	<0.0008	<1	<0.0011	<2	<0.001
2-Butanone (MEK)	3.71E+04	(1)	8.43E+04	(5)	5.87E+02	(9)	5.87E+02	-	<10	<0.005	0.000987	<10	0.00143	<0.006	<0.5	<0.0101	<0.0081	<5	<0.0108	<10	<0.002
2-Chlorotoluene	1.56E+03	(1)	6.19E+03	(5)	2.57E+02	(9)	2.57E+02	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	0.12	<0.001
2-Hexanone	9.38E+02	(1)	9.73E+02	(5)	3.53E+03	(9)	9.38E+02	-	<10	<0.005	<0.004	<10	<0.005	<0.006	<0.5	<0.0101	<0.0081	<5	<0.0108	<10	<0.002
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	23	<0.004	<0.003	90	<0.004	<0.005	0.024	<0.004	<0.0032	25	<0.0043	0.67	0.00402
4-Chlorotoluene	1.60E+03	(2)	2.00E+04	(6)	8.30E+01	(9)	8.30E+01	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
4-Isopropyltoluene	-	-	-	-	-	-	-	-	0.49	<0.001	<0.001	0.53	<0.001	<0.001	<0.05	<0.001	<0.0008	0.57	<0.0011	0.095	0.0017

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-3 (8-10')	SWMU 14-4 (0-0.5')	SWMU 14-4 (1.5-2.0')	SWMU 14-4 (10-12')	SWMU 14-4 (19.5-20')	SWMU 14-5 (0-0.5')	SWMU 14-5 (1.5-2.0')	SWMU 14-6 (0-0.5')	SWMU 14-6 (1.5-2')	SWMU 14-6 (10-12')	SWMU 14-6 (17-18')	SWMU 14-7 (0-0.5')	SWMU 14-7 (1.5-2')
									1207900-003	1207917-001	1207917-002	1207917-003	1207917-004	1207940-016	1207940-018	1210582-001	1210582-002	1210582-003	1210582-004	1207922-006	1207922-007
									7/18/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/19/2012	7/19/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	7/18/2012	7/18/2012
4-Methyl-2-pentanone	5.30E+03	(2)	5.30E+04	(6)	1.06E+02	(9)	1.06E+02	-	<10	<0.005	<0.004	<10	<0.005	<0.006	<0.5	<0.0101	<0.0081	<5	<0.0108	<10	<0.002
Acetone	6.66E+04	(1)	2.21E+05	(5)	1.78E+03	(9)	1.78E+03	-	8.9	<0.028	0.0222	6.5	0.00793	0.0181	0.11	0.0973	0.0187	<7.5	<0.0108	3.7	<0.009
Benzene	1.54E+01	(1)	8.47E+01	(4)	7.96E-01	(9)	7.96E-01	-	0.14	<0.001	<0.001	0.34	<0.001	<0.001	<0.05	0.00291	<0.0008	0.96	0.00909	<1	0.0126
Bromobenzene	3.00E+02	(2)	1.80E+03	(6)	1.66E+01	(9)	1.66E+01	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
Bromodichloromethane	5.41E+00	(1)	3.01E+01	(4)	1.25E-01	(9)	1.25E-01	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
Bromoform	6.16E+02	(1)	2.42E+03	(4)	2.78E+02	(9)	2.78E+02	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
Bromomethane	1.65E+01	(1)	1.64E+01	(5)	8.86E-01	(9)	8.86E-01	-	<3	-	-	<3	-	-	<0.15	<0.001	<0.0008	<1.5	<0.0011	<3	-
Carbon disulfide	1.53E+03	(1)	1.58E+03	(5)	1.30E+02	(9)	1.30E+02	-	<10	<0.005	<0.004	<10	<0.005	<0.006	<0.5	<0.0101	<0.0081	<5	<0.0108	<10	0.000629
Carbon tetrachloride	1.08E+01	(1)	5.98E+01	(4)	7.39E-01	(9)	7.39E-01	-	<2	<0.001	<0.001	<2	<0.001	<0.001	<0.1	<0.001	<0.0008	<1	<0.0011	<2	<0.001
Chlorobenzene	3.76E+02	(1)	4.06E+02	(5)	2.27E+01	(9)	2.27E+01	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	0.000323
Chloroethane	2.98E+04	(1)	2.61E+04	(5)	2.48E+03	(9)	2.48E+03	-	<2	<0.001	<0.001	<2	<0.001	<0.001	<0.1	<0.001	<0.0008	<1	<0.0011	<2	<0.001
Chloroform	5.86E+00	(1)	3.27E+01	(4)	2.12E-01	(9)	2.12E-01	-	<1	<0.001	<0.001	<1	<0.001	<0.001	0.006	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
Chloromethane	2.75E+02	(1)	2.41E+02	(5)	2.03E+01	(9)	2.03E+01	-	<3	<0.001	<0.001	<3	<0.001	<0.001	<0.15	<0.001	<0.0008	<1.5	<0.0011	<3	<0.001
cis-1,2-DCE	1.56E+02	(1)	6.19E+02	(5)	8.47E+00	(9)	8.47E+00	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
cis-1,3-Dichloropropene	3.37E+01	(1)	1.77E+02	(4)	5.71E-01	(9)	5.71E-01	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
Dibromochloromethane	1.21E+01	(1)	6.24E+01	(4)	1.52E-01	(9)	1.52E-01	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
Dibromomethane	5.16E+01	(1)	2.54E+02	(4)	7.89E-01	(9)	7.89E-01	-	<2	<0.001	<0.001	<2	<0.001	<0.001	<0.1	<0.001	<0.0008	<1	<0.0011	<2	<0.001
Dichlorodifluoromethane	1.68E+02	(1)	1.49E+02	(5)	1.71E+02	(9)	1.49E+02	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
Ethylbenzene	6.84E+01	(1)	3.78E+02	(4)	5.98E+00	(9)	5.98E+00	-	0.75	<0.001	<0.001	1.4	<0.001	<0.001	<0.05	0.00157	<0.0008	7.5	0.00134	<1	0.00691
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<2	<0.001	<0.001	<2	<0.001	<0.001	<0.1	<0.001	<0.0008	<1	<0.0011	<2	<0.001
Isopropylbenzene	2.43E+03	(1)	2.81E+03	(5)	3.99E+02	(9)	3.99E+02	-	0.3	<0.001	<0.001	0.58	<0.001	<0.001	<0.05	<0.001	<0.0008	1.7	<0.0011	<1	0.00208
Methyl tert-butyl ether (MTBE)	9.01E+02	(1)	4.89E+03	(4)	1.11E+01	(9)	1.11E+01	-	<1	<0.002	0.00107	<1	<0.002	<0.002	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	0.0102
Methylene chloride	4.09E+02	(1)	1.12E+03	(5)	1.90E+01	(9)	1.90E+01	-	0.12	<0.005	<0.004	<3	<0.005	<0.006	0.042	<0.003	0.0173	<1.5	0.031	<3	<0.002
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	3.3	<0.001	<0.001	9.2	<0.001	<0.001	0.016	<0.002	<0.0016	9.1	<0.0022	0.35	0.00218
n-Butylbenzene	3.90E+03	(2)	5.10E+04	(6)	1.15E+03	(9)	1.15E+03	-	0.7	<0.001	<0.001	1	<0.001	<0.001	<0.05	<0.001	<0.0008	2	<0.0011	0.15	0.00116
n-Propylbenzene	3.40E+03	(2)	2.10E+04	(6)	4.56E+02	(9)	4.56E+02	-	0.56	<0.001	<0.001	0.89	<0.001	<0.001	<0.05	<0.001	<0.0008	3.3	<0.0011	<1	0.00257
sec-Butylbenzene	-	-	-	-	-	-	-	-	0.34	<0.001	<0.001	0.48	<0.001	<0.001	<0.05	<0.001	<0.0008	1.2	<0.0011	<1	0.00203
Styrene	7.28E+03	(1)	9.99E+03	(5)	6.40E+02	(9)	6.40E+02	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
tert-Butylbenzene	-	-	-	-	-	-	-	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
Tetrachloroethene (PCE)	7.02E+00	(1)	3.66E+01	(4)	1.98E-01	(9)	1.98E-01	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
Toluene	5.27E+03	(1)	1.34E+04	(5)	5.84E+02	(9)	5.84E+02	-	<1	<0.001	<0.001	<1	<0.001	0.000344	<0.05	0.00336	<0.0008	<0.5	0.00596	<1	<0.001
trans-1,2-DCE	2.70E+02	(1)	2.73E+02	(5)	1.24E+01	(9)	1.24E+01	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
Trichloroethene (TCE)	8.77E+00	(1)	7.68E+00	(5)	4.85E-01	(9)	4.85E-01	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
Trichlorofluoromethane	1.41E+03	(1)	1.30E+03	(5)	4.10E+02	(9)	4.10E+02	-	<1	0.000477	0.000596	<1	0.000301	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
Vinyl chloride	7.28E-01	(1)	2.61E+01	(4)	2.50E-02	(9)	2.50E-02	-	<1	<0.001	<0.001	<1	<0.001	<0.001	<0.05	<0.001	<0.0008	<0.5	<0.0011	<1	<0.001
Xylenes, Total	8.14E+02	(1)	7.43E+02	(5)	7.21E+01	(9)	7.21E+01	-	1.1	<0.003	<0.003	0.56	<0.003	<0.004	<0.1	0.00786	<0.0016	12	0.0046	<2	0.00795
Semi Volatile Organics - (EPA Method 8270) mg/kg																					
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	24	<0.399	<0.402	29	<0.199	<0.996	<0.198	<0.3995	<0.397	12	<0.1996	<1.008	<0.403
2,4,5-Trichlorophenol	6.11E+03	(1)	2.38E+04	(5)	4.78E+03	(9)	4.78E+03	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
2,4,6-Trichlorophenol	6.11E+01	(1)	2.38E+02	(5)	4.78E+01	(9)	4.78E+01	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
2,4-Dichlorophenol	1.83E+02	(1)	7.15E+02	(5)	4.60E+01	(9)	4.60E+01	-	<4.003	<0.798	<0.803	<0.797	<0.398	<1.992	<0.397	<0.7989	<0.7939	<0.7921	<0.3992	<2.017	<0.805
2,4-Dimethylphenol	1.22E+03	(1)	4.76E+03	(5)	3.07E+02	(9)	3.07E+02	-	<3.002	<0.598	<0.602	<0.597	<0.299	<1.494	<0.298	<0.5992	<0.5954	<0.5941	<0.2994	<1.513	<0.604
2,4-Dinitrophenol	1.22E+02	(1)	4.76E+02	(5)	2.91E+01	(9)	2.91E+01	-	<4.003	<0.798	<0.803	0.2	0.09	<1.992	<0.397	<0.7989	<0.7939	<0.7921	<0.3992	<2.017	0.19

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Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-3 (8-10')	SWMU 14-4 (0-0.5')	SWMU 14-4 (1.5-2.0')	SWMU 14-4 (10-12')	SWMU 14-4 (19.5-20')	SWMU 14-5 (0-0.5')	SWMU 14-5 (1.5-2.0')	SWMU 14-6 (0-0.5')	SWMU 14-6 (1.5-2')	SWMU 14-6 (10-12')	SWMU 14-6 (17-18')	SWMU 14-7 (0-0.5')	SWMU 14-7 (1.5-2')
									1207900-003	1207917-001	1207917-002	1207917-003	1207917-004	1207940-016	1207940-018	1210582-001	1210582-002	1210582-003	1210582-004	1207922-006	1207922-007
									7/18/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/19/2012	7/19/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	7/18/2012	7/18/2012
2,4-Dinitrotoluene	1.57E+01	(1)	6.18E+01	(4)	1.04E+00	(9)	1.04E+00	-	<5.003	<0.997	<1.004	<0.996	<0.498	<2.49	<0.496	<0.9987	<0.9924	<0.9901	<0.499	<2.521	<1.007
2,6-Dinitrotoluene	6.11E+01	(1)	2.38E+02	(5)	1.77E+01	(9)	1.77E+01	-	<5.003	<0.997	<1.004	<0.996	<0.498	<2.49	<0.496	<0.9987	<0.9924	<0.9901	<0.499	<2.521	<1.007
2-Chloronaphthalene	6.11E+01	(1)	1.49E+02	(4)	4.01E-01	(9)	4.01E-01	-	<2.502	<0.499	<0.502	<0.498	<0.249	<1.245	<0.248	<0.4993	<0.4962	<0.495	<0.2495	<1.261	<0.503
2-Chlorophenol	3.91E+02	(1)	1.55E+03	(5)	5.33E+01	(9)	5.33E+01	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	29	<0.399	<0.402	46	<0.199	<0.996	<0.198	<0.3995	<0.397	17	<0.1996	<1.008	<0.403
2-Methylphenol	3.10E+03	(2)	3.10E+04	(6)	2.67E+02	(9)	2.67E+02	-	<5.003	<0.997	<1.004	<0.996	<0.498	<2.49	<0.496	<0.9987	<0.9924	<0.9901	<0.499	<2.521	<1.007
2-Nitroaniline	6.10E+02	(2)	6.00E+03	(6)	2.86E+01	(9)	2.86E+01	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
2-Nitrophenol	-	-	-	-	-	-	-	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
3,3'-Dichlorobenzidine	1.08E+01	(1)	4.26E+01	(4)	3.41E+00	(9)	3.41E+00	-	<2.502	<0.499	<0.502	<0.498	<0.249	<1.245	<0.248	<0.4993	<0.4962	<0.495	<0.2495	<1.261	<0.503
3+4-Methylphenol	-	-	-	-	-	-	-	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
3-Nitroaniline	-	-	-	-	-	-	-	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
4,6-Dinitro-2-methylphenol	4.90E+00	(2)	4.90E+01	(6)	9.22E-01	(9)	9.22E-01	-	<5.003	<0.997	<1.004	<0.996	<0.498	<2.49	<0.496	<0.9987	<0.9924	<0.9901	<0.499	<2.521	<1.007
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
4-Chloro-3-methylphenol	6.10E+03	(2)	6.20E+04	(6)	5.99E+02	(9)	5.99E+02	-	<5.003	<0.997	<1.004	<0.996	<0.498	<2.49	<0.496	<0.9987	<0.9924	<0.9901	<0.499	<2.521	<1.007
4-Chloroaniline	2.40E+01	(3)	8.60E+01	(7)	5.99E-02	(9)	5.99E-02	-	<5.003	<0.997	<1.004	<0.996	<0.498	<2.49	<0.496	<0.9987	<0.9924	<0.9901	<0.499	<2.521	<1.007
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
4-Nitroaniline	2.40E+02	(3)	8.60E+02	(7)	6.45E-01	(9)	6.45E-01	-	<4.003	<0.798	<0.803	<0.797	<0.398	<1.992	<0.397	<0.7989	<0.7939	<0.7921	<0.3992	<2.017	<0.805
4-Nitrophenol	-	-	-	-	-	-	-	-	<2.502	<0.499	<0.502	<0.498	<0.249	<1.245	<0.248	<0.4993	<0.4962	<0.495	<0.2495	<1.261	<0.503
Acenaphthene	3.44E+03	(1)	1.86E+04	(5)	7.79E+03	(9)	3.44E+03	-	2	<0.399	<0.402	1	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Acenaphthylene	-	-	-	-	-	-	-	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Aniline	8.50E+02	(3)	3.00E+03	(7)	1.80E+00	(9)	1.80E+00	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Anthracene	1.72E+04	(1)	6.68E+04	(5)	1.25E+05	(9)	1.72E+04	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Azobenzene	5.10E+01	(3)	2.30E+02	(7)	3.69E-01	(9)	3.69E-01	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Benz(a)anthracene	1.48E+00	(1)	2.34E+01	(4)	3.61E+01	(9)	1.48E+00	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Benzo(a)pyrene	1.48E-01	(1)	2.34E+00	(4)	1.20E+01	(9)	1.48E-01	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Benzo(b)fluoranthene	1.48E+00	(1)	2.34E+01	(4)	1.22E+02	(9)	1.48E+00	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Benzo(k)fluoranthene	1.48E+01	(1)	2.34E+02	(4)	1.20E+03	(9)	1.48E+01	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Benzoic acid	2.40E+05	(2)	2.50E+06	(6)	6.45E+03	(9)	6.45E+03	-	<5.003	<0.997	<1.004	<0.996	<0.498	0.44	<0.496	<0.9987	<0.9924	<0.9901	<0.499	1.2	<1.007
Benzyl alcohol	6.10E+03	(2)	6.20E+04	(6)	1.71E+02	(9)	1.71E+02	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Bis(2-chloroethoxy)methane	1.80E+02	(2)	1.80E+03	(6)	5.07E+00	(9)	5.07E+00	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Bis(2-chloroethyl)ether	2.68E+00	(1)	1.42E+01	(4)	1.21E-02	(9)	1.21E-02	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Bis(2-chloroisopropyl)ether	9.15E+01	(1)	4.54E+02	(4)	1.07E+00	(9)	1.07E+00	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Bis(2-ethylhexyl)phthalate	3.47E+02	(1)	1.37E+03	(4)	3.97E+03	(9)	3.47E+02	-	<5.003	0.24	<1.004	0.52	<0.498	<2.49	<0.496	<0.9987	<0.9924	<0.9901	<0.499	<2.521	<1.007
Butyl benzyl phthalate	2.60E+03	(3)	9.10E+03	(7)	9.22E+01	(9)	9.22E+01	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Carbazole	-	-	-	-	-	-	-	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Chrysene	1.48E+02	(1)	2.34E+03	(4)	3.68E+03	(9)	1.48E+02	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Dibenz(a,h)anthracene	1.48E-01	(1)	2.34E+00	(4)	3.90E+01	(9)	1.48E-01	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Dibenzofuran	7.80E+01	(2)	1.00E+03	(6)	5.07E+01	(9)	5.07E+01	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Diethyl phthalate	4.89E+04	(1)	1.91E+05	(5)	4.45E+03	(9)	4.45E+03	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Dimethyl phthalate	6.11E+05	(1)	2.38E+06	(5)	3.71E+04	(9)	3.71E+04	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Di-n-butyl phthalate	6.11E+03	(1)	2.38E+04	(5)	3.21E+03	(9)	3.21E+03	-	<5.003	<0.997	<1.004	<0.996	<0.498	<2.49	<0.496	<0.9987	<0.9924	<0.9901	<0.499	<2.521	<1.007
Di-n-octyl phthalate	-	-	-	-	-	-	-	-	<2.502	<0.499	<0.502	<0.498	<0.249	<1.245	<0.248	<0.4993	<0.4962	<0.495	<0.2495	<1.261	<0.503
Fluoranthene	2.29E+03	(1)	8.91E+03	(5)	5.61E+04	(9)	2.29E+03	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Fluorene	2.29E+03	(1)	8.91E+03	(5)	9.36E+03	(9)	2.29E+03	-	<2.001	<0.399	<0.402	1.4	<0.199	<0.996	<0.198	<0.3995	<0.397	1.2	<0.1996	<1.008	<0.403
Hexachlorobenzene	3.04E+00	(1)	1.20E+01	(4)	1.83E+00	(9)	1.83E+00	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Hexachlorocyclopentadiene	3.67E+02	(1)	8.11E+02	(5)	2.43E+02	(9)	2.43E+02	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-3 (8-10')	SWMU 14-4 (0-0.5')	SWMU 14-4 (1.5-2.0')	SWMU 14-4 (10-12')	SWMU 14-4 (19.5-20')	SWMU 14-5 (0-0.5')	SWMU 14-6 (1.5-2.0')	SWMU 14-6 (0-0.5')	SWMU 14-6 (1.5-2')	SWMU 14-6 (10-12')	SWMU 14-6 (17-18')	SWMU 14-7 (0-0.5')	SWMU 14-7 (1.5-2')
									1207900-003	1207917-001	1207917-002	1207917-003	1207917-004	1207940-016	1207940-018	1210582-001	1210582-002	1210582-003	1210582-004	1207922-006	1207922-007
									7/18/2012	7/17/2012	7/17/2012	7/17/2012	7/17/2012	7/19/2012	7/19/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	7/18/2012	7/18/2012
Hexachloroethane	4.28E+01	(1)	1.67E+02	(5)	3.77E+00	(9)	3.77E+00	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Indeno(1,2,3-cd)pyrene	1.48E+00	(1)	2.34E+01	(4)	3.98E+02	(9)	1.48E+00	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Isophorone	5.12E+03	(1)	4.75E+04	(5)	8.84E+01	(9)	8.84E+01	-	<5.003	<0.997	<1.004	<0.996	<0.498	<2.49	<0.496	<0.9987	<0.9924	<0.9901	<0.499	<2.521	<1.007
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	3.8	<0.399	<0.402	4	<0.199	<0.996	<0.198	<0.3995	<0.397	4.2	<0.1996	<1.008	<0.403
Nitrobenzene	5.35E+01	(1)	3.00E+02	(4)	2.88E-01	(9)	2.88E-01	-	<5.003	<0.997	<1.004	<0.996	<0.498	<2.49	<0.496	<0.9987	<0.9924	<0.9901	<0.499	<2.521	<1.007
N-Nitrosodi-n-propylamine	6.90E-01	(3)	2.50E+00	(7)	3.23E-03	(9)	3.23E-03	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
N-Nitrosodiphenylamine	9.93E+02	(1)	3.91E+03	(4)	2.61E+02	(9)	2.61E+02	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Pentachlorophenol	8.94E+00	(1)	3.00E+01	(4)	5.90E+00	(9)	5.90E+00	-	<4.003	<0.798	<0.803	<0.797	<0.398	<1.992	<0.397	<0.7989	<0.7939	<0.7921	<0.3992	<2.017	<0.805
Phenanthrene	1.83E+03	(1)	7.15E+03	(5)	1.32E+04	(9)	1.83E+03	-	4.8	<0.399	<0.402	3.3	<0.199	<0.996	<0.198	<0.3995	<0.397	2.6	<0.1996	<1.008	<0.403
Phenol	1.83E+04	(1)	6.88E+04	(5)	2.29E+03	(9)	2.29E+03	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Pyrene	1.72E+03	(1)	6.68E+03	(5)	4.12E+04	(9)	1.72E+03	-	<2.001	<0.399	<0.402	<0.398	<0.199	<0.996	<0.198	<0.3995	<0.397	<0.396	<0.1996	<1.008	<0.403
Pyridine	7.80E+01	(2)	1.00E+03	(6)	2.44E+00	(9)	2.44E+00	-	<5.003	<0.997	<1.004	<0.996	<0.498	<2.49	<0.496	<0.9987	<0.9924	<0.9901	<0.499	<2.521	<1.007
Total Petroleum Hydrocarbons - (EPA Method 8015B) mg/kg																					
Diesel Range Organics (DRO)	1.00E+03	(11)	1.00E+03	(11)	1.00E+03	(11)	-	-	2000	88	39	610	<10	300	53	<10	260	2200	<10	3900	2100
Gasoline Range Organics (GRO)	-	-	-	-	-	-	-	-	84	<10	<5	67	4	5.4	<5	<5	<5	220	<5	<250	15
Motor Oil Range Organics (MRO)	3.00E+03	(12)	3.00E+03	(12)	3.00E+03	(12)	-	-	<1005	56	<51	<510	<51	240	<51	<52	320	<482	<50	<994	<486

-- No screening level or analytical result available

NMED - Risk Assessment Guidance for Site Investigations and Remediation (June 14, 2012)

EPA - Regional Screening Levels (November 2012)

(1) NMED Residential Screening Level

(2) EPA Residential Screening Level

(3) EPA Residential - Screening Levels (November 2012) multiplied by 10 because the constituent is listed as carcinogenic

(4) NMED Industrial Occupational Screening Level

(5) NMED Construction Worker Screening Level

(6) EPA Industrial - Screening Levels (Nov. 2012)

(7) EPA Industrial - Screening Levels (Nov. 2012) multiplied by 10

(8) SoilGW NMED Dilution Attenuation Factor (DAF) = 461

(9) SoilGW Risk-based EPA DAF = 461

(10) SoilGW MCL-based EPA DAF = 461

(11) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "uknown oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(12) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "waste oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(13) Background concentrations to be determined.

Bold represents value above Residential Screening Level

yellow highlight represents value above Leachate (DAF) Screening Level

Bold with yellow - value exceeds Residential Screening Level and

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-7 (23.5-24')	SWMU 14-7 (6-8')	SWMU 14-8 (0-0.5')	SWMU 14-8 (1.5-2.0')	SWMU 14-9 (0-0.5')	SWMU 14-9 (1.5-2')	SWMU 14-9 (13-14')	SWMU 14-9 (4-6')	SWMU 14-10 (0-0.5')	SWMU 14-10 (1.5-2.0')	SWMU 14-11 (0-0.5')	SWMU 14-11 (1.5-2.0')	SWMU 14-12 (0-0.5')
									1207922-009	1207922-008	1207940-003	1207940-004	1207922-001	1207922-003	1207922-005	1207922-004	1207940-001	1207940-002	1207940-012	1207940-013	1207940-006
									7/18/2012	7/18/2012	7/19/2012	7/19/2012	7/18/2012	7/18/2012	7/18/2012	7/18/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012
Metals (mg/kg)																					
Antimony	3.13E+01	(1)	1.24E+02	(5)	3.05E+02	(9)	3.13E+01	-	4.5	4.6	4.5	<12.5	<12.499	<12.5	4.5	<12.501	3.3	<12.5	<12.5	<12.5	<12.5
Arsenic	3.90E+00	(1)	1.77E+01	(4)	6.05E+00	(9)	3.90E+00	-	<12.5	<12.501	<12.5	<12.5	<12.499	<12.5	<12.5	<12.501	<12.5	<12.5	<12.5	<12.5	<12.5
Barium	1.56E+04	(1)	4.35E+03	(5)	1.39E+05	(9)	4.35E+03	-	350	2400	610	690	480	500	190	200	430	430	590	620	150
Beryllium	1.56E+02	(1)	1.44E+02	(5)	2.66E+04	(9)	1.44E+02	-	1.2	1.2	0.77	0.88	0.58	0.52	1.3	1.1	0.89	0.83	0.83	0.84	1
Cadmium	7.03E+01	(1)	2.77E+02	(5)	6.33E+02	(9)	7.03E+01	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium III	1.17E+05	(1)	4.65E+05	(5)	4.54E+10	(9)	1.17E+05	-	17	14	16	10	13	10	19	12	23	23	21	17	12
Chromium VI	2.97E+00	(1)	6.31E+01	(4)	3.83E+00	(9)	2.97E+00	-	17	14	16	10	13	10	19	12	23	23	21	17	12
Cobalt	2.30E+01	(2)	3.00E+02	(6)	9.68E+01	(9)	2.30E+01	-	7.6	6	5	4.7	3.8	3.1	6.5	4.9	5.4	5.1	5.4	4.9	5.9
Cyanide	4.69E+01	(1)	1.86E+02	(5)	1.02E+02	(9)	4.69E+01	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Iron	5.48E+04	(1)	2.17E+05	(5)	2.98E+05	(9)	5.48E+04	-	21000	20000	15000	13000	14000	8800	23000	16000	15000	14000	14000	15000	15000
Lead	4.00E+02	(1)	8.00E+02	(5)	6.45E+03	(10)	4.00E+02	-	<1.25	2.6	6.2	5	5.5	1.9	<1.25	2.4	7.7	6.8	7	5.8	4.4
Manganese	1.86E+03	(1)	4.40E+02	(5)	2.64E+04	(9)	4.40E+02	-	740	400	470	190	1800	930	460	280	510	530	550	700	240
Mercury	1.56E+01	(1)	1.36E+01	(5)	1.51E+01	(9)	1.36E+01	-	<0.033	<0.033	0.041	<0.033	0.68	0.09	<0.033	<0.033	0.32	0.21	0.14	0.058	0.04
Nickel	1.56E+03	(1)	6.19E+03	(5)	2.20E+04	(9)	1.56E+03	-	16	11	7.4	7.9	6.3	5.9	13	8.5	9.3	8.8	9.7	7.9	9.8
Selenium	3.91E+02	(1)	1.55E+03	(5)	4.45E+02	(9)	3.91E+02	-	<12.5	<12.501	<12.5	<12.5	<12.499	<12.5	<12.5	<12.501	<12.5	<12.5	<12.5	<12.5	<12.5
Silver	3.91E+02	(1)	1.55E+03	(5)	7.22E+02	(9)	3.91E+02	-	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25
Vanadium	3.91E+02	(1)	1.55E+03	(5)	8.42E+04	(9)	3.91E+02	-	16	27	25	18	18	19	29	20	25	23	25	24	23
Zinc	2.35E+04	(1)	9.29E+04	(5)	3.14E+05	(9)	2.35E+04	-	25	22	33	15	44	28	27	17	49	43	59	38	18
Volatile Organic Compounds - (EPA Method 8260) mg/kg																					
1,1,1,2-Tetrachloroethane	2.91E+01	(1)	1.61E+02	(4)	7.59E-01	(9)	7.59E-01	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
1,1,1-Trichloroethane	1.56E+04	(1)	1.48E+04	(5)	1.34E+03	(9)	1.34E+03	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
1,1,2,2-Tetrachloroethane	8.02E+00	(1)	4.35E+01	(4)	9.82E-02	(9)	9.82E-02	-	<0.001	<1	<0.001	<1	0.00043	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
1,1,2-Trichloroethane	2.81E+00	(1)	1.33E+01	(4)	5.14E-02	(9)	5.14E-02	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
1,1-Dichloroethane	6.45E+01	(1)	3.59E+02	(4)	2.75E+00	(9)	2.75E+00	-	<0.001	<2	0.000918	<2	<0.001	<1	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<5
1,1-Dichloroethene	4.49E+02	(1)	4.32E+02	(5)	5.36E+01	(9)	5.36E+01	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
1,1-Dichloropropene	-	-	-	-	-	-	-	-	<0.001	<2	<0.001	<2	<0.001	<1	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<5
1,2,3-Trichlorobenzene	4.90E+01	(2)	4.90E+02	(6)	6.92E+00	(9)	6.92E+00	-	<0.001	<2	<0.001	<2	<0.001	<1	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<5
1,2,3-Trichloropropane	4.97E-02	(1)	7.23E+00	(5)	1.15E-03	(9)	1.15E-03	-	<0.001	<2	<0.001	<2	<0.001	<1	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<5
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
1,2,4-Trimethylbenzene	6.20E+01	(2)	2.60E+02	(6)	9.68E+00	(9)	9.68E+00	-	<0.001	12	<0.001	6.7	0.002	1.5	<0.001	3.2	<0.001	<0.001	<0.001	0.000507	38
1,2-Dibromo-3-chloropropane	1.86E+00	(1)	1.08E+00	(4)	5.07E-04	(9)	5.07E-04	-	<0.002	<2	<0.002	<2	<0.002	<1	<0.002	<1	<0.002	<0.002	<0.002	<0.003	2.2
1,2-Dibromoethane (EDB)	5.88E-01	(1)	3.22E+00	(4)	7.10E-03	(9)	7.10E-03	-	<0.001	0.41	<0.001	0.31	<0.001	<0.5	<0.001	0.12	<0.001	<0.001	<0.001	<0.001	0.82
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
1,2-Dichloroethane (EDC)	7.89E+00	(1)	4.35E+01	(4)	1.64E-01	(9)	1.64E-01	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
1,2-Dichloropropane	1.52E+01	(1)	2.50E+01	(5)	4.94E-01	(9)	4.94E-01	-	<0.002	0.14	<0.002	0.23	<0.002	<0.5	<0.002	<0.5	<0.002	<0.002	<0.002	<0.003	0.6
1,3,5-Trimethylbenzene	7.80E+02	(2)	1.00E+04	(6)	5.53E+01	(9)	5.53E+01	-	<0.001	1.7	<0.001	2.2	0.000458	0.46	<0.001	0.92	<0.001	<0.001	<0.001	0.00726	11
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
1,3-Dichloropropane	1.60E+03	(2)	2.00E+04	(6)	4.56E+01	(9)	4.56E+01	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<0.001	<1	0.000252	<1	<0.001	<0.5	<0.001	<0.5	<0.001	0.000221	<0.001	<0.001	<2.5
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	<0.004	7.2	<0.003	2	0.0674	0.58	<0.005	2.9	0.002	<0.004	<0.004	0.0152	29
2,2-Dichloropropane	-	-	-	-	-	-	-	-	<0.001	<2	<0.001	<2	<0.001	<1	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<5
2-Butanone (MEK)	3.71E+04	(1)	8.43E+04	(5)	5.87E+02	(9)	5.87E+02	-	<0.002	<10	0.00321	<10	<0.002	<5	<0.002	<5	0.002	<0.004	<0.005	<0.006	<25
2-Chlorotoluene	1.56E+03	(1)	6.19E+03	(5)	2.57E+02	(9)	2.57E+02	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	0.049	<0.001	<0.001	<0.001	<0.001	0.26
2-Hexanone	9.38E+02	(1)	9.73E+02	(5)	3.53E+03	(9)	9.38E+02	-	<0.002	<10	<0.004	<10	<0.002	<5	<0.002	<5	<0.005	<0.004	<0.005	<0.006	<25
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	<0.004	12	<0.003	2.3	0.107	0.65	0.000628	4.7	0.00182	0.000302	<0.004	0.00211	50
4-Chlorotoluene	1.60E+03	(2)	2.00E+04	(6)	8.30E+01	(9)	8.30E+01	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
4-Isopropyltoluene	-	-	-	-	-	-	-	-	<0.001	0.73	<0.001	0.44	<0.001	0.056	<0.001	0.15	<0.001	<0.001	<0.001	0.000723	2.1

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-7 (23.5-24')	SWMU 14-7 (6-8')	SWMU 14-8 (0-0.5')	SWMU 14-8 (1.5-2.0')	SWMU 14-9 (0-0.5')	SWMU 14-9 (1.5-2')	SWMU 14-9 (13-14')	SWMU 14-9 (4-6')	SWMU 14-10 (0-0.5')	SWMU 14-10 (1.5-2.0')	SWMU 14-11 (0-0.5')	SWMU 14-11 (1.5-2.0')	SWMU 14-12 (0-0.5')
									1207922-009	1207922-008	1207940-003	1207940-004	1207922-001	1207922-003	1207922-005	1207922-004	1207940-001	1207940-002	1207940-012	1207940-013	1207940-006
									7/18/2012	7/18/2012	7/19/2012	7/19/2012	7/18/2012	7/18/2012	7/18/2012	7/18/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012
4-Methyl-2-pentanone	5.30E+03	(2)	5.30E+04	(6)	1.06E+02	(9)	1.06E+02	-	<0.002	<10	<0.004	<10	<0.002	<5	<0.002	<5	<0.005	<0.004	<0.005	<0.006	<25
Acetone	6.66E+04	(1)	2.21E+05	(5)	1.78E+03	(9)	1.78E+03	-	0.00266	8.2	0.014	7.1	0.00307	<7.5	0.00673	<7.5	0.0158	<0.026	<0.029	<0.038	<37.5
Benzene	1.54E+01	(1)	8.47E+01	(4)	7.96E-01	(9)	7.96E-01	-	<0.001	0.97	0.0122	0.35	<0.001	0.06	<0.001	0.69	0.00072	<0.001	<0.001	<0.001	5.9
Bromobenzene	3.00E+02	(2)	1.80E+03	(6)	1.66E+01	(9)	1.66E+01	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
Bromodichloromethane	5.41E+00	(1)	3.01E+01	(4)	1.25E-01	(9)	1.25E-01	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
Bromoform	6.16E+02	(1)	2.42E+03	(4)	2.78E+02	(9)	2.78E+02	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
Bromomethane	1.65E+01	(1)	1.64E+01	(5)	8.86E-01	(9)	8.86E-01	-	-	<3	-	<3	-	<1.5	-	<1.5	-	-	-	-	<7.5
Carbon disulfide	1.53E+03	(1)	1.58E+03	(5)	1.30E+02	(9)	1.30E+02	-	<0.002	<10	<0.004	<10	<0.002	<5	<0.002	<5	0.00144	<0.004	<0.005	<0.006	<25
Carbon tetrachloride	1.08E+01	(1)	5.98E+01	(4)	7.39E-01	(9)	7.39E-01	-	<0.001	<2	<0.001	<2	<0.001	<1	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<5
Chlorobenzene	3.76E+02	(1)	4.06E+02	(5)	2.27E+01	(9)	2.27E+01	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
Chloroethane	2.98E+04	(1)	2.61E+04	(5)	2.48E+03	(9)	2.48E+03	-	<0.001	<2	<0.001	<2	<0.001	<1	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<5
Chloroform	5.86E+00	(1)	3.27E+01	(4)	2.12E-01	(9)	2.12E-01	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
Chloromethane	2.75E+02	(1)	2.41E+02	(5)	2.03E+01	(9)	2.03E+01	-	<0.001	<3	0.00053	<3	<0.001	<1.5	<0.001	<1.5	<0.001	<0.001	<0.001	<0.001	<7.5
cis-1,2-DCE	1.56E+02	(1)	6.19E+02	(5)	8.47E+00	(9)	8.47E+00	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
cis-1,3-Dichloropropene	3.37E+01	(1)	1.77E+02	(4)	5.71E-01	(9)	5.71E-01	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
Dibromochloromethane	1.21E+01	(1)	6.24E+01	(4)	1.52E-01	(9)	1.52E-01	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
Dibromomethane	5.16E+01	(1)	2.54E+02	(4)	7.89E-01	(9)	7.89E-01	-	<0.001	<2	<0.001	<2	<0.001	<1	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<5
Dichlorodifluoromethane	1.68E+02	(1)	1.49E+02	(5)	1.71E+02	(9)	1.49E+02	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
Ethylbenzene	6.84E+01	(1)	3.78E+02	(4)	5.98E+00	(9)	5.98E+00	-	<0.001	3.1	<0.001	3.8	0.000542	0.35	<0.001	1.1	<0.001	<0.001	<0.001	<0.001	17
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<0.001	<2	<0.001	<2	<0.001	<1	<0.001	<1	<0.001	<0.001	<0.001	<0.001	<5
Isopropylbenzene	2.43E+03	(1)	2.81E+03	(5)	3.99E+02	(9)	3.99E+02	-	<0.001	0.84	<0.001	0.97	<0.001	0.064	<0.001	0.19	<0.001	<0.001	<0.001	<0.001	3
Methyl tert-butyl ether (MTBE)	9.01E+02	(1)	4.89E+03	(4)	1.11E+01	(9)	1.11E+01	-	<0.001	0.8	0.00157	<1	<0.001	<0.5	<0.001	0.1	<0.002	<0.002	<0.002	<0.003	0.83
Methylene chloride	4.09E+02	(1)	1.12E+03	(5)	1.90E+01	(9)	1.90E+01	-	<0.002	<3	<0.004	<3	<0.002	<1.5	<0.002	<1.5	<0.005	<0.004	<0.005	<0.006	<7.5
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	<0.001	3.9	<0.001	1.1	0.0183	0.3	<0.001	1.1	0.00069	<0.001	<0.001	<0.001	16
n-Butylbenzene	3.90E+03	(2)	5.10E+04	(6)	1.15E+03	(9)	1.15E+03	-	<0.001	1.6	<0.001	0.58	0.000177	0.1	<0.001	0.28	<0.001	<0.001	<0.001	<0.001	4
n-Propylbenzene	3.40E+03	(2)	2.10E+04	(6)	4.56E+02	(9)	4.56E+02	-	<0.001	2	<0.001	1.4	<0.001	0.17	<0.001	0.45	<0.001	<0.001	<0.001	<0.001	6.2
sec-Butylbenzene	-	-	-	-	-	-	-	-	<0.001	0.86	<0.001	0.47	<0.001	<0.5	<0.001	0.15	<0.001	<0.001	<0.001	<0.001	2.4
Styrene	7.28E+03	(1)	9.99E+03	(5)	6.40E+02	(9)	6.40E+02	-	<0.001	<1	<0.001	<1	<0.001	0.077	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
tert-Butylbenzene	-	-	-	-	-	-	-	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
Tetrachloroethene (PCE)	7.02E+00	(1)	3.66E+01	(4)	1.98E-01	(9)	1.98E-01	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
Toluene	5.27E+03	(1)	1.34E+04	(5)	5.84E+02	(9)	5.84E+02	-	<0.001	0.75	0.000743	1.4	0.000262	0.14	<0.001	2.8	0.00292	0.000892	<0.001	<0.001	45
trans-1,2-DCE	2.70E+02	(1)	2.73E+02	(5)	1.24E+01	(9)	1.24E+01	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
Trichloroethene (TCE)	8.77E+00	(1)	7.68E+00	(5)	4.85E-01	(9)	4.85E-01	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
Trichlorofluoromethane	1.41E+03	(1)	1.30E+03	(5)	4.10E+02	(9)	4.10E+02	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	0.000219	<0.001	0.000685	<2.5
Vinyl chloride	7.28E-01	(1)	2.61E+01	(4)	2.50E-02	(9)	2.50E-02	-	<0.001	<1	<0.001	<1	<0.001	<0.5	<0.001	<0.5	<0.001	<0.001	<0.001	<0.001	<2.5
Xylenes, Total	8.14E+02	(1)	7.43E+02	(5)	7.21E+01	(9)	7.21E+01	-	<0.002	8.1	<0.003	9.3	0.00282	2.4	<0.002	5.6	<0.003	<0.003	<0.003	<0.004	86
Semi Volatile Organics - (EPA Method 8270) mg/kg																					
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	<0.199	6.5	<1.002	3.6	1.5	<0.994	<0.202	5.1	<1.006	<0.989	<0.997	<1.004	21
2,4,5-Trichlorophenol	6.11E+03	(1)	2.38E+04	(5)	4.78E+03	(9)	4.78E+03	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
2,4,6-Trichlorophenol	6.11E+01	(1)	2.38E+02	(5)	4.78E+01	(9)	4.78E+01	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
2,4-Dichlorophenol	1.83E+02	(1)	7.15E+02	(5)	4.60E+01	(9)	4.60E+01	-	<0.399	<0.797	<2.003	<1.995	<1.982	<1.988	<0.403	<0.803	<2.011	<1.978	<1.995	<2.009	<0.801
2,4-Dimethylphenol	1.22E+03	(1)	4.76E+03	(5)	3.07E+02	(9)	3.07E+02	-	<0.299	<0.597	<1.503	<1.497	<1.486	<1.491	<0.303	0.52	<1.509	<1.484	<1.496	<1.507	<0.601
2,4-Dinitrophenol	1.22E+02	(1)	4.76E+02	(5)	2.91E+01	(9)	2.91E+01	-	0.091	<0.797	<2.003	0.56	<1.982	0.46	<0.403	<0.803	<2.011	<1.978	<1.995	<2.009	<0.801

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-7 (23.5-24')	SWMU 14-7 (6-8')	SWMU 14-8 (0-0.5')	SWMU 14-8 (1.5-2.0')	SWMU 14-9 (0-0.5')	SWMU 14-9 (1.5-2')	SWMU 14-9 (13-14')	SWMU 14-9 (4-5')	SWMU 14-10 (0-0.5')	SWMU 14-10 (1.5-2.0')	SWMU 14-11 (0-0.5')	SWMU 14-11 (1.5-2.0')	SWMU 14-12 (0-0.5')
									1207922-009	1207922-008	1207940-003	1207940-004	1207922-001	1207922-003	1207922-005	1207922-004	1207940-001	1207940-002	1207940-012	1207940-013	1207940-006
									7/18/2012	7/18/2012	7/19/2012	7/19/2012	7/18/2012	7/18/2012	7/18/2012	7/18/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012
2,4-Dinitrotoluene	1.57E+01	(1)	6.18E+01	(4)	1.04E+00	(9)	1.04E+00	-	<0.498	<0.996	<2.504	<2.494	<2.477	<2.485	<0.504	<1.004	<2.514	<2.473	<2.493	<2.511	<1.001
2,6-Dinitrotoluene	6.11E+01	(1)	2.38E+02	(5)	1.77E+01	(9)	1.77E+01	-	<0.498	<0.996	<2.504	<2.494	<2.477	<2.485	<0.504	<1.004	<2.514	<2.473	<2.493	<2.511	<1.001
2-Chloronaphthalene	6.11E+01	(1)	1.49E+02	(4)	4.01E-01	(9)	4.01E-01	-	<0.249	<0.498	<1.252	<1.247	<1.238	<1.243	<0.252	<0.502	<1.257	<1.236	<1.247	<1.255	<0.501
2-Chlorophenol	3.91E+02	(1)	1.55E+03	(5)	5.33E+01	(9)	5.33E+01	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	<0.199	9.2	<1.002	4.2	1.9	<0.994	<0.202	8	<1.006	<0.989	<0.997	<1.004	32
2-Methylphenol	3.10E+03	(2)	3.10E+04	(6)	2.67E+02	(9)	2.67E+02	-	<0.498	<0.996	<2.504	<2.494	<2.477	<2.485	<0.504	0.33	<2.514	<2.473	<2.493	<2.511	<1.001
2-Nitroaniline	6.10E+02	(2)	6.00E+03	(6)	2.86E+01	(9)	2.86E+01	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
2-Nitrophenol	-	-	-	-	-	-	-	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
3,3'-Dichlorobenzidine	1.08E+01	(1)	4.26E+01	(4)	3.41E+00	(9)	3.41E+00	-	<0.249	<0.498	<1.252	<1.247	<1.238	<1.243	<0.252	<0.502	<1.257	<1.236	<1.247	<1.255	<0.501
3+4-Methylphenol	-	-	-	-	-	-	-	-	<0.199	<0.398	<1.002	<0.998	0.4	<0.994	<0.202	0.26	<1.006	<0.989	<0.997	<1.004	1.1
3-Nitroaniline	-	-	-	-	-	-	-	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
4,6-Dinitro-2-methylphenol	4.90E+00	(2)	4.90E+01	(6)	9.22E-01	(9)	9.22E-01	-	<0.498	<0.996	<2.504	<2.494	<2.477	<2.485	<0.504	<1.004	<2.514	<2.473	<2.493	<2.511	<1.001
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
4-Chloro-3-methylphenol	6.10E+03	(2)	6.20E+04	(6)	5.99E+02	(9)	5.99E+02	-	<0.498	<0.996	<2.504	<2.494	<2.477	<2.485	<0.504	<1.004	<2.514	<2.473	<2.493	<2.511	<1.001
4-Chloroaniline	2.40E+01	(3)	8.60E+01	(7)	5.99E-02	(9)	5.99E-02	-	<0.498	<0.996	<2.504	<2.494	<2.477	<2.485	<0.504	<1.004	<2.514	<2.473	<2.493	<2.511	<1.001
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
4-Nitroaniline	2.40E+02	(3)	8.60E+02	(7)	6.45E-01	(9)	6.45E-01	-	<0.399	<0.797	<2.003	<1.995	<1.982	<1.988	<0.403	<0.803	<2.011	<1.978	<1.995	<2.009	<0.801
4-Nitrophenol	-	-	-	-	-	-	-	-	<0.249	<0.498	<1.252	<1.247	<1.238	<1.243	<0.252	0.22	<1.257	<1.236	<1.247	<1.255	<0.501
Acenaphthene	3.44E+03	(1)	1.86E+04	(5)	7.79E+03	(9)	3.44E+03	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Acenaphthylene	-	-	-	-	-	-	-	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Aniline	8.50E+02	(3)	3.00E+03	(7)	1.80E+00	(9)	1.80E+00	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Anthracene	1.72E+04	(1)	6.68E+04	(5)	1.25E+05	(9)	1.72E+04	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Azobenzene	5.10E+01	(3)	2.30E+02	(7)	3.69E-01	(9)	3.69E-01	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Benz(a)anthracene	1.48E+00	(1)	2.34E+01	(4)	3.61E+01	(9)	1.48E+00	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Benzo(a)pyrene	1.48E-01	(1)	2.34E+00	(4)	1.20E+01	(9)	1.48E-01	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Benzo(b)fluoranthene	1.48E+00	(1)	2.34E+01	(4)	1.22E+02	(9)	1.48E+00	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Benzo(k)fluoranthene	1.48E+01	(1)	2.34E+02	(4)	1.20E+03	(9)	1.48E+01	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Benzoic acid	2.40E+05	(2)	2.50E+06	(6)	6.45E+03	(9)	6.45E+03	-	<0.498	<0.996	<2.504	2.3	0.59	0.5	<0.504	<1.004	<2.514	<2.473	0.47	0.66	<1.001
Benzyl alcohol	6.10E+03	(2)	6.20E+04	(6)	1.71E+02	(9)	1.71E+02	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Bis(2-chloroethoxy)methane	1.80E+02	(2)	1.80E+03	(6)	5.07E+00	(9)	5.07E+00	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Bis(2-chloroethyl)ether	2.68E+00	(1)	1.42E+01	(4)	1.21E-02	(9)	1.21E-02	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	0.18	<1.006	<0.989	<0.997	<1.004	<0.401
Bis(2-chloroisopropyl)ether	9.15E+01	(1)	4.54E+02	(4)	1.07E+00	(9)	1.07E+00	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Bis(2-ethylhexyl)phthalate	3.47E+02	(1)	1.37E+03	(4)	3.97E+03	(9)	3.47E+02	-	<0.498	<0.996	<2.504	<2.494	2.6	<2.485	<0.504	<1.004	<2.514	<2.473	<2.493	<2.511	<1.001
Butyl benzyl phthalate	2.60E+03	(3)	9.10E+03	(7)	9.22E+01	(9)	9.22E+01	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Carbazole	-	-	-	-	-	-	-	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Chrysene	1.48E+02	(1)	2.34E+03	(4)	3.68E+03	(9)	1.48E+02	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Dibenz(a,h)anthracene	1.48E-01	(1)	2.34E+00	(4)	3.90E+01	(9)	1.48E-01	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Dibenzofuran	7.80E+01	(2)	1.00E+03	(6)	5.07E+01	(9)	5.07E+01	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Diethyl phthalate	4.89E+04	(1)	1.91E+05	(5)	4.45E+03	(9)	4.45E+03	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Dimethyl phthalate	6.11E+05	(1)	2.38E+06	(5)	3.71E+04	(9)	3.71E+04	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Di-n-butyl phthalate	6.11E+03	(1)	2.38E+04	(5)	3.21E+03	(9)	3.21E+03	-	<0.498	<0.996	<2.504	<2.494	<2.477	<2.485	<0.504	<1.004	<2.514	<2.473	<2.493	<2.511	<1.001
Di-n-octyl phthalate	-	-	-	-	-	-	-	-	<0.249	<0.498	<1.252	<1.247	<1.238	<1.243	<0.252	<0.502	<1.257	<1.236	<1.247	<1.255	<0.501
Fluoranthene	2.29E+03	(1)	8.91E+03	(5)	5.61E+04	(9)	2.29E+03	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Fluorene	2.29E+03	(1)	8.91E+03	(5)	9.36E+03	(9)	2.29E+03	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Hexachlorobenzene	3.04E+00	(1)	1.20E+01	(4)	1.83E+00	(9)	1.83E+00	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Hexachlorocyclopentadiene	3.67E+02	(1)	8.11E+02	(5)	2.43E+02	(9)	2.43E+02	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-7 (23.5-24')	SWMU 14-7 (6-8')	SWMU 14-8 (0-0.5')	SWMU 14-8 (1.5-2.0')	SWMU 14-9 (0-0.5')	SWMU 14-9 (1.5-2')	SWMU 14-9 (13-14')	SWMU 14-9 (4-6')	SWMU 14-10 (0-0.5')	SWMU 14-10 (1.5-2.0')	SWMU 14-11 (0-0.5')	SWMU 14-11 (1.5-2.0')	SWMU 14-12 (0-0.5')
									1207922-009	1207922-008	1207940-003	1207940-004	1207922-001	1207922-003	1207922-005	1207922-004	1207940-001	1207940-002	1207940-012	1207940-013	1207940-006
									7/18/2012	7/18/2012	7/19/2012	7/19/2012	7/18/2012	7/18/2012	7/18/2012	7/18/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012
Hexachloroethane	4.28E+01	(1)	1.67E+02	(5)	3.77E+00	(9)	3.77E+00	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Indeno(1,2,3-cd)pyrene	1.48E+00	(1)	2.34E+01	(4)	3.98E+02	(9)	1.48E+00	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Isophorone	5.12E+03	(1)	4.75E+04	(5)	8.84E+01	(9)	8.84E+01	-	<0.498	<0.996	<2.504	<2.494	<2.477	<2.485	<0.504	<1.004	<2.514	<2.473	<2.493	<2.511	<1.001
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	<0.199	2.2	<1.002	1.5	<0.991	<0.994	<0.202	1.8	<1.006	<0.989	<0.997	<1.004	6.6
Nitrobenzene	5.35E+01	(1)	3.00E+02	(4)	2.88E-01	(9)	2.88E-01	-	<0.498	<0.996	<2.504	<2.494	<2.477	<2.485	<0.504	<1.004	<2.514	<2.473	<2.493	<2.511	<1.001
N-Nitrosodi-n-propylamine	6.90E-01	(3)	2.50E+00	(7)	3.23E-03	(9)	3.23E-03	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
N-Nitrosodiphenylamine	9.93E+02	(1)	3.91E+03	(4)	2.61E+02	(9)	2.61E+02	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	<0.401
Pentachlorophenol	8.94E+00	(1)	3.00E+01	(4)	5.90E+00	(9)	5.90E+00	-	<0.399	<0.797	<2.003	<1.995	<1.982	<1.988	<0.403	<0.803	<2.011	<1.978	<1.995	<2.009	<0.801
Phenanthrene	1.83E+03	(1)	7.15E+03	(5)	1.32E+04	(9)	1.83E+03	-	<0.199	2	<1.002	1.1	1.7	<0.994	<0.202	1.1	<1.006	<0.989	<0.997	<1.004	7.3
Phenol	1.83E+04	(1)	6.88E+04	(5)	2.29E+03	(9)	2.29E+03	-	<0.199	<0.398	<1.002	<0.998	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	2.1
Pyrene	1.72E+03	(1)	6.68E+03	(5)	4.12E+04	(9)	1.72E+03	-	<0.199	0.25	<1.002	0.6	<0.991	<0.994	<0.202	<0.401	<1.006	<0.989	<0.997	<1.004	1.1
Pyridine	7.80E+01	(2)	1.00E+03	(6)	2.44E+00	(9)	2.44E+00	-	<0.498	<0.996	<2.504	<2.494	<2.477	<2.485	<0.504	<1.004	<2.514	<2.473	<2.493	<2.511	<1.001
Total Petroleum Hydrocarbons - (EPA Method 8015B) mg/kg																					
Diesel Range Organics (DRO)	1.00E+03	(11)	1.00E+03	(11)	1.00E+03	(11)	-	-	<10	1000	550	**4300**	1000	**1200**	<10	**1800**	350	240	350	350	**15000**
Gasoline Range Organics (GRO)	-	-	-	-	-	-	-	-	3.4	150	7.9	170	20	<50	1.1	59	3.7	7.5	5.8	27	700
Motor Oil Range Organics (MRO)	3.00E+03	(12)	3.00E+03	(12)	3.00E+03	(12)	-	-	<50	<499	<1010	<994	<990	<988	<50	<490	190	150	150	80	790

– No screening level or analytical result available
NMED - Risk Assessment Guidance for Site Investigations and Remediation (June 14, 2012)
EPA - Regional Screening Levels (November 2012)
(1) NMED Residential Screening Level
(2) EPA Residential Screening Level
(3) EPA Residential - Screening Levels (November 2012) multiplied by 10 because the constituent is listed as carcinogenic
(4) NMED Industrial Occupational Screening Level
(5) NMED Construction Worker Screening Level
(6) EPA Industrial - Screening Levels (Nov. 2012)
(7) EPA Industrial - Screening Levels (Nov. 2012) multiplied by 10
(8) SoilGW NMED Dilution Attenuation Factor (DAF) = 461
(9) SoilGW Risk-based EPA DAF = 461
(10) SoilGW MCL-based EPA DAF = 461
(11) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "uknown oil" with DAF = 1.0 - see report Section 5 for use of screening levels
(12) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "waste oil" with DAF = 1.0 - see report Section 5 for use of screening levels
(13) Background concentrations to be determined.

Bold represents value above Residential Screening Level
yellow highlight represents value above Leachate (DAF) Screening Level
Bold with yellow - value exceeds Residential Screening Level and

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-12 (1.5-2.0')	SWMU 14-13 (0-0.5')	SWMU 14-13 (1.5-2.0')	SWMU 14-14 (0-0.5')	SWMU 14-14 (1.5-2.0')	SWMU 14-15 (0-0.5')	SWMU 14-15 (1.5-2.0')	SWMU 14-16 (0-0.5')	SWMU 14-16 (1.5-2.0')	SWMU 14-17 (0-0.5')	SWMU 14-17 (1.5-2.0')	SWMU 14-18 (0-0.5')	SWMU 14-18 (1.5-2.0')
									1207940-007	1207940-008	1207940-009	1207940-010	1207940-011	1207940-025	1207940-026	1207940-023	1207940-024	1207940-021	1207940-022	1207940-014	1207940-015
									7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012
Metals (mg/kg)																					
Antimony	3.13E+01	(1)	1.24E+02	(5)	3.05E+02	(9)	3.13E+01	-	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5
Arsenic	3.90E+00	(1)	1.77E+01	(4)	6.05E+00	(9)	3.90E+00	-	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5
Barium	1.56E+04	(1)	4.35E+03	(5)	1.39E+05	(9)	4.35E+03	-	120	350	230	980	190	670	650	550	1000	850	600	620	680
Beryllium	1.56E+02	(1)	1.44E+02	(5)	2.66E+04	(9)	1.44E+02	-	0.95	0.97	1	0.93	1	0.67	0.51	0.62	0.73	0.86	0.87	0.86	0.76
Cadmium	7.03E+01	(1)	2.77E+02	(5)	6.33E+02	(9)	7.03E+01	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium III	1.17E+05	(1)	4.65E+05	(5)	4.54E+10	(9)	1.17E+05	-	12	17	13	18	11	14	8.9	13	15	20	25	25	26
Chromium VI	2.97E+00	(1)	6.31E+01	(4)	3.83E+00	(9)	2.97E+00	-	12	17	13	18	11	14	8.9	13	15	20	25	25	26
Cobalt	2.30E+01	(2)	3.00E+02	(6)	9.68E+01	(9)	2.30E+01	-	5.3	5.7	5.7	5.7	4.9	4.7	3.6	4.4	4.5	5.4	5.4	5.2	5.5
Cyanide	4.69E+01	(1)	1.86E+02	(5)	1.02E+02	(9)	4.69E+01	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.33	<0.5	1.22	1.5
Iron	5.48E+04	(1)	2.17E+05	(5)	2.98E+05	(9)	5.48E+04	-	15000	8400	16000	16000	14000	12000	7300	11000	15000	17000	15000	16000	15000
Lead	4.00E+02	(1)	8.00E+02	(5)	6.45E+03	(10)	4.00E+02	-	2.6	2	3.3	3.3	2.9	4.1	1.3	4.8	5.1	7.1	3.2	10	14
Manganese	1.86E+03	(1)	4.40E+02	(5)	2.64E+04	(9)	4.40E+02	-	300	340	390	350	240	540	360	1100	560	560	640	580	540
Mercury	1.56E+01	(1)	1.36E+01	(5)	1.51E+01	(9)	1.36E+01	-	0.097	0.14	<0.033	0.33	0.0074	0.13	0.22	0.062	0.052	1.3	0.12	0.2	0.15
Nickel	1.56E+03	(1)	6.19E+03	(5)	2.20E+04	(9)	1.56E+03	-	8.7	9.1	9.5	9.1	8.1	8.2	5.6	6.9	7.1	12	8.7	8.5	8.9
Selenium	3.91E+02	(1)	1.55E+03	(5)	4.45E+02	(9)	3.91E+02	-	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5
Silver	3.91E+02	(1)	1.55E+03	(5)	7.22E+02	(9)	3.91E+02	-	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25
Vanadium	3.91E+02	(1)	1.55E+03	(5)	8.42E+04	(9)	3.91E+02	-	22	26	23	27	21	23	20	22	25	28	27	30	26
Zinc	2.35E+04	(1)	9.29E+04	(5)	3.14E+05	(9)	2.35E+04	-	18	36	19	34	19	140	68	69	25	230	37	68	65
Volatile Organic Compounds - (EPA Method 8260) mg/kg																					
1,1,1,2-Tetrachloroethane	2.91E+01	(1)	1.61E+02	(4)	7.59E-01	(9)	7.59E-01	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
1,1,1-Trichloroethane	1.56E+04	(1)	1.48E+04	(5)	1.34E+03	(9)	1.34E+03	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
1,1,2,2-Tetrachloroethane	8.02E+00	(1)	4.35E+01	(4)	9.82E-02	(9)	9.82E-02	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
1,1,2-Trichloroethane	2.81E+00	(1)	1.33E+01	(4)	5.14E-02	(9)	5.14E-02	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	1	<0.001	<2.5
1,1-Dichloroethane	6.45E+01	(1)	3.59E+02	(4)	2.75E+00	(9)	2.75E+00	-	<5	<2	<1	<5	<1	<0.001	<5	<0.001	<2	<0.001	<2	<0.001	<5
1,1-Dichloroethene	4.49E+02	(1)	4.32E+02	(5)	5.36E+01	(9)	5.36E+01	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
1,1-Dichloropropene	-	-	-	-	-	-	-	-	<5	<2	<1	<5	<1	<0.001	<5	<0.001	<2	<0.001	<2	<0.001	<5
1,2,3-Trichlorobenzene	4.90E+01	(2)	4.90E+02	(6)	6.92E+00	(9)	6.92E+00	-	<5	<2	<1	<5	<1	<0.001	<5	<0.001	<2	<0.001	<2	<0.001	<5
1,2,3-Trichloropropane	4.97E-02	(1)	7.23E+00	(5)	1.15E-03	(9)	1.15E-03	-	<5	<2	<1	<5	<1	<0.001	<5	<0.001	<2	<0.001	<2	<0.001	<5
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
1,2,4-Trimethylbenzene	6.20E+01	(2)	2.60E+02	(6)	9.68E+00	(9)	9.68E+00	-	22	3.7	3.5	38	4.8	<0.001	44	<0.001	3.6	<0.001	33	<0.001	37
1,2-Dibromo-3-chloropropane	1.86E+00	(1)	1.08E+00	(4)	5.07E-04	(9)	5.07E-04	-	<5	<2	<1	<5	<1	<0.002	<5	<0.002	<2	<0.002	<2	<0.002	<5
1,2-Dibromoethane (EDB)	5.88E-01	(1)	3.22E+00	(4)	7.10E-03	(9)	7.10E-03	-	0.56	0.15	0.14	1	0.17	<0.001	<2.5	<0.001	0.21	<0.001	0.9	<0.001	1.2
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
1,2-Dichloroethane (EDC)	7.89E+00	(1)	4.35E+01	(4)	1.64E-01	(9)	1.64E-01	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
1,2-Dichloropropane	1.52E+01	(1)	2.50E+01	(5)	4.94E-01	(9)	4.94E-01	-	0.46	<1	<0.5	0.48	0.089	<0.002	<2.5	<0.002	<1	<0.002	0.33	<0.002	0.82
1,3,5-Trimethylbenzene	7.80E+02	(2)	1.00E+04	(6)	5.53E+01	(9)	5.53E+01	-	6.3	1.4	0.93	12	0.87	<0.001	16	<0.001	1.1	<0.001	7.8	<0.001	13
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
1,3-Dichloropropane	1.60E+03	(2)	2.00E+04	(6)	4.56E+01	(9)	4.56E+01	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	21	12	2.6	31	3.3	<0.004	6.7	<0.004	12	<0.004	38	<0.004	12
2,2-Dichloropropane	-	-	-	-	-	-	-	-	<5	<2	<1	<5	<1	<0.001	<5	<0.001	<2	<0.001	<2	<0.001	<5
2-Butanone (MEK)	3.71E+04	(1)	8.43E+04	(5)	5.87E+02	(9)	5.87E+02	-	<25	<10	<5	<25	<5	<0.005	<25	<0.005	<10	0.00152	<10	<0.005	<25
2-Chlorotoluene	1.56E+03	(1)	6.19E+03	(5)	2.57E+02	(9)	2.57E+02	-	<2.5	<1	0.053	0.46	<0.5	<0.001	<2.5	<0.001	0.11	<0.001	0.22	<0.001	<2.5
2-Hexanone	9.38E+02	(1)	9.73E+02	(5)	3.53E+03	(9)	9.38E+02	-	<25	<10	<5	<25	<5	<0.005	<25	<0.005	0.37	<0.005	<10	<0.005	<25
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	36	13	4.6	55	6.1	<0.004	9.8	<0.004	9.6	<0.004	60	<0.004	20
4-Chlorotoluene	1.60E+03	(2)	2.00E+04	(6)	8.30E+01	(9)	8.30E+01	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
4-Isopropyltoluene	-	-	-	-	-	-	-	-	1.3	0.38	0.22	1.7	0.29	<0.001	3.4	<0.001	0.27	<0.001	2.7	<0.001	1.9

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

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-12 (1.5-2.0')	SWMU 14-13 (0-0.5')	SWMU 14-13 (1.5-2.0')	SWMU 14-14 (0-0.5')	SWMU 14-14 (1.5-2.0')	SWMU 14-15 (0-0.5')	SWMU 14-15 (1.5-2.0')	SWMU 14-16 (0-0.5')	SWMU 14-16 (1.5-2.0')	SWMU 14-17 (0-0.5')	SWMU 14-17 (1.5-2.0')	SWMU 14-18 (0-0.5')	SWMU 14-18 (1.5-2.0')
									1207940-007	1207940-008	1207940-009	1207940-010	1207940-011	1207940-025	1207940-026	1207940-023	1207940-024	1207940-021	1207940-022	1207940-014	1207940-015
									7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012
4-Methyl-2-pentanone	5.30E+03	(2)	5.30E+04	(6)	1.06E+02	(9)	1.06E+02	-	<25	<10	<5	<25	<5	<0.005	<25	<0.005	<10	<0.005	<10	<0.005	<25
Acetone	6.66E+04	(1)	2.21E+05	(5)	1.78E+03	(9)	1.78E+03	-	47	4.1	3.6	13	3.8	<0.029	35	<0.027	4.1	0.00602	12	<0.033	34
Benzene	1.54E+01	(1)	8.47E+01	(4)	7.96E-01	(9)	7.96E-01	-	2.9	<1	0.48	<2.5	0.84	<0.001	2.8	<0.001	0.46	0.00129	1.6	<0.001	2.2
Bromobenzene	3.00E+02	(2)	1.80E+03	(6)	1.66E+01	(9)	1.66E+01	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
Bromodichloromethane	5.41E+00	(1)	3.01E+01	(4)	1.25E-01	(9)	1.25E-01	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
Bromoform	6.16E+02	(1)	2.42E+03	(4)	2.78E+02	(9)	2.78E+02	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
Bromomethane	1.65E+01	(1)	1.64E+01	(5)	8.86E-01	(9)	8.86E-01	-	<7.5	<3	<1.5	<7.5	<1.5	-	<7.5	-	<3	-	<3	-	<7.5
Carbon disulfide	1.53E+03	(1)	1.58E+03	(5)	1.30E+02	(9)	1.30E+02	-	<25	<10	<5	<25	<5	<0.005	<25	<0.005	<10	<0.005	<10	<0.005	<25
Carbon tetrachloride	1.08E+01	(1)	5.98E+01	(4)	7.39E-01	(9)	7.39E-01	-	<5	<2	<1	<5	<1	<0.001	<5	<0.001	<2	<0.001	<2	<0.001	<5
Chlorobenzene	3.76E+02	(1)	4.06E+02	(5)	2.27E+01	(9)	2.27E+01	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	0.11	<0.001	<2.5
Chloroethane	2.98E+04	(1)	2.61E+04	(5)	2.48E+03	(9)	2.48E+03	-	<5	<2	<1	<5	<1	<0.001	<5	<0.001	<2	<0.001	<2	<0.001	<5
Chloroform	5.86E+00	(1)	3.27E+01	(4)	2.12E-01	(9)	2.12E-01	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
Chloromethane	2.75E+02	(1)	2.41E+02	(5)	2.03E+01	(9)	2.03E+01	-	<7.5	<3	<1.5	<7.5	<1.5	<0.001	<7.5	<0.001	<3	0.000352	<3	<0.001	<7.5
cis-1,2-DCE	1.56E+02	(1)	6.19E+02	(5)	8.47E+00	(9)	8.47E+00	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
cis-1,3-Dichloropropene	3.37E+01	(1)	1.77E+02	(4)	5.71E-01	(9)	5.71E-01	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
Dibromochloromethane	1.21E+01	(1)	6.24E+01	(4)	1.52E-01	(9)	1.52E-01	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
Dibromomethane	5.16E+01	(1)	2.54E+02	(4)	7.89E-01	(9)	7.89E-01	-	<5	<2	<1	<5	<1	<0.001	<5	<0.001	<2	<0.001	<2	<0.001	<5
Dichlorodifluoromethane	1.68E+02	(1)	1.49E+02	(5)	1.71E+02	(9)	1.49E+02	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
Ethylbenzene	6.84E+01	(1)	3.78E+02	(4)	5.98E+00	(9)	5.98E+00	-	7.5	0.47	1.3	4.3	1.7	<0.001	23	<0.001	0.67	<0.001	13	<0.001	17
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<5	<2	<1	<5	<1	<0.001	<5	<0.001	<2	<0.001	<2	<0.001	<5
Isopropylbenzene	2.43E+03	(1)	2.81E+03	(5)	3.99E+02	(9)	3.99E+02	-	1.6	0.2	0.28	1.6	0.39	<0.001	6.6	<0.001	0.13	<0.001	2.9	<0.001	3.5
Methyl tert-butyl ether (MTBE)	9.01E+02	(1)	4.89E+03	(4)	1.11E+01	(9)	1.11E+01	-	1.5	<1	0.19	<2.5	0.2	<0.002	<2.5	<0.002	<1	<0.002	0.16	<0.002	<2.5
Methylene chloride	4.09E+02	(1)	1.12E+03	(5)	1.90E+01	(9)	1.90E+01	-	0.31	<3	0.24	0.35	0.24	<0.005	2	<0.005	0.63	<0.005	0.14	<0.005	0.31
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	10	1.8	1.2	11	1.4	<0.001	3.6	<0.001	3.9	<0.001	17	0.000458	8.8
n-Butylbenzene	3.90E+03	(2)	5.10E+04	(6)	1.15E+03	(9)	1.15E+03	-	2.4	0.66	0.4	3.3	0.51	<0.001	3.8	<0.001	0.31	<0.001	4.6	<0.001	2.8
n-Propylbenzene	3.40E+03	(2)	2.10E+04	(6)	4.56E+02	(9)	4.56E+02	-	3.6	0.47	0.55	4	0.73	<0.001	8.1	<0.001	0.22	<0.001	4.9	<0.001	5.7
sec-Butylbenzene	-	-	-	-	-	-	-	-	1.4	0.28	0.23	1.6	0.3	<0.001	3.8	<0.001	0.17	<0.001	2.9	<0.001	2
Styrene	7.28E+03	(1)	9.99E+03	(5)	6.40E+02	(9)	6.40E+02	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
tert-Butylbenzene	-	-	-	-	-	-	-	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
Tetrachloroethene (PCE)	7.02E+00	(1)	3.66E+01	(4)	1.98E-01	(9)	1.98E-01	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
Toluene	5.27E+03	(1)	1.34E+04	(5)	5.84E+02	(9)	5.84E+02	-	14	0.15	0.61	1.3	0.83	<0.001	<2.5	0.00033	<1	0.00273	0.17	0.00075	<2.5
trans-1,2-DCE	2.70E+02	(1)	2.73E+02	(5)	1.24E+01	(9)	1.24E+01	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
Trichloroethene (TCE)	8.77E+00	(1)	7.68E+00	(5)	4.85E-01	(9)	4.85E-01	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
Trichlorofluoromethane	1.41E+03	(1)	1.30E+03	(5)	4.10E+02	(9)	4.10E+02	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	0.000414	<1	<0.001	<2.5
Vinyl chloride	7.28E-01	(1)	2.61E+01	(4)	2.50E-02	(9)	2.50E-02	-	<2.5	<1	<0.5	<2.5	<0.5	<0.001	<2.5	<0.001	<1	<0.001	<1	<0.001	<2.5
Xylenes, Total	8.14E+02	(1)	7.43E+02	(5)	7.21E+01	(9)	7.21E+01	-	36	2.4	5.5	45	5.3	<0.003	120	<0.003	1.1	<0.003	14	<0.003	53
Semi Volatile Organics - (EPA Method 8270) mg/kg																					
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	5.2	1.6	1.4	18	17	<1.003	4.4	<1.006	6.3	<1.979	29	<0.995	4.5
2,4,5-Trichlorophenol	6.11E+03	(1)	2.38E+04	(5)	4.78E+03	(9)	4.78E+03	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
2,4,6-Trichlorophenol	6.11E+01	(1)	2.38E+02	(5)	4.78E+01	(9)	4.78E+01	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
2,4-Dichlorophenol	1.83E+02	(1)	7.15E+02	(5)	4.60E+01	(9)	4.60E+01	-	<0.805	<0.401	<0.398	<2.004	<1.983	<2.005	<1.996	<2.012	<2	<3.958	<2.007	<1.989	<3.991
2,4-Dimethylphenol	1.22E+03	(1)	4.76E+03	(5)	3.07E+02	(9)	3.07E+02	-	<0.603	<0.301	0.29	<1.503	<1.488	<1.504	<1.497	<1.509	<1.5	<2.968	<1.506	<1.492	<2.993
2,4-Dinitrophenol	1.22E+02	(1)	4.76E+02	(5)	2.91E+01	(9)	2.91E+01	-	<0.805	0.16	0.12	0.59	0.66	<2.005	0.49	0.46	<2	<3.958	0.53	0.46	<3.991

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-12 (1.5-2.0')	SWMU 14-13 (0-0.5')	SWMU 14-13 (1.5-2.0')	SWMU 14-14 (0-0.5')	SWMU 14-14 (1.5-2.0')	SWMU 14-15 (0-0.5')	SWMU 14-15 (1.5-2.0')	SWMU 14-16 (0-0.5')	SWMU 14-16 (1.5-2.0')	SWMU 14-17 (0-0.5')	SWMU 14-17 (1.5-2.0')	SWMU 14-18 (0-0.5')	SWMU 14-18 (1.5-2.0')
									1207940-007	1207940-008	1207940-009	1207940-010	1207940-011	1207940-025	1207940-026	1207940-023	1207940-024	1207940-021	1207940-022	1207940-014	1207940-015
									7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012
2,4-Dinitrotoluene	1.57E+01	(1)	6.18E+01	(4)	1.04E+00	(9)	1.04E+00	-	<1.006	<0.502	<0.498	<2.505	<2.479	<2.507	<2.495	<2.515	<2.5	<4.947	<2.509	<2.487	<4.988
2,6-Dinitrotoluene	6.11E+01	(1)	2.38E+02	(5)	1.77E+01	(9)	1.77E+01	-	<1.006	<0.502	<0.498	<2.505	<2.479	<2.507	<2.495	<2.515	<2.5	<4.947	<2.509	<2.487	<4.988
2-Chloronaphthalene	6.11E+01	(1)	1.49E+02	(4)	4.01E-01	(9)	4.01E-01	-	<0.503	<0.251	<0.249	<1.253	<1.24	<1.253	<1.248	<1.258	<1.25	<2.474	<1.255	<1.243	<2.494
2-Chlorophenol	3.91E+02	(1)	1.55E+03	(5)	5.33E+01	(9)	5.33E+01	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	7.7	0.81	2.3	28	27	<1.003	6.7	<1.006	6.1	<1.979	38	<0.995	7
2-Methylphenol	3.10E+03	(2)	3.10E+04	(6)	2.67E+02	(9)	2.67E+02	-	1.1	<0.502	<0.498	<2.505	<2.479	<2.507	<2.495	<2.515	<2.5	<4.947	<2.509	<2.487	<4.988
2-Nitroaniline	6.10E+02	(2)	6.00E+03	(6)	2.86E+01	(9)	2.86E+01	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
2-Nitrophenol	-	-	-	-	-	-	-	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
3,3'-Dichlorobenzidine	1.08E+01	(1)	4.26E+01	(4)	3.41E+00	(9)	3.41E+00	-	<0.503	<0.251	<0.249	<1.253	<1.24	<1.253	<1.248	<1.258	<1.25	<2.474	<1.255	<1.243	<2.494
3+4-Methylphenol	-	-	-	-	-	-	-	-	2.2	<0.201	0.088	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
3-Nitroaniline	-	-	-	-	-	-	-	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
4,6-Dinitro-2-methylphenol	4.90E+00	(2)	4.90E+01	(6)	9.22E-01	(9)	9.22E-01	-	<1.006	<0.502	<0.498	<2.505	<2.479	<2.507	<2.495	<2.515	<2.5	<4.947	<2.509	<2.487	<4.988
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
4-Chloro-3-methylphenol	6.10E+03	(2)	6.20E+04	(6)	5.99E+02	(9)	5.99E+02	-	<1.006	<0.502	<0.498	<2.505	<2.479	<2.507	<2.495	<2.515	<2.5	<4.947	<2.509	<2.487	<4.988
4-Chloroaniline	2.40E+01	(3)	8.60E+01	(7)	5.99E-02	(9)	5.99E-02	-	<1.006	<0.502	<0.498	<2.505	<2.479	<2.507	<2.495	<2.515	<2.5	<4.947	<2.509	<2.487	<4.988
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
4-Nitroaniline	2.40E+02	(3)	8.60E+02	(7)	6.45E-01	(9)	6.45E-01	-	<0.805	<0.401	<0.398	<2.004	<1.983	<2.005	<1.996	<2.012	<2	<3.958	<2.007	<1.989	<3.991
4-Nitrophenol	-	-	-	-	-	-	-	-	<0.503	<0.251	<0.249	<1.253	<1.24	<1.253	<1.248	<1.258	<1.25	<2.474	<1.255	<1.243	<2.494
Acenaphthene	3.44E+03	(1)	1.86E+04	(5)	7.79E+03	(9)	3.44E+03	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Acenaphthylene	-	-	-	-	-	-	-	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Aniline	8.50E+02	(3)	3.00E+03	(7)	1.80E+00	(9)	1.80E+00	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Anthracene	1.72E+04	(1)	6.68E+04	(5)	1.25E+05	(9)	1.72E+04	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Azobenzene	5.10E+01	(3)	2.30E+02	(7)	3.69E-01	(9)	3.69E-01	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Benz(a)anthracene	1.48E+00	(1)	2.34E+01	(4)	3.61E+01	(9)	1.48E+00	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	0.61	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Benzo(a)pyrene	1.48E-01	(1)	2.34E+00	(4)	1.20E+01	(9)	1.48E-01	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Benzo(b)fluoranthene	1.48E+00	(1)	2.34E+01	(4)	1.22E+02	(9)	1.48E+00	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Benzo(k)fluoranthene	1.48E+01	(1)	2.34E+02	(4)	1.20E+03	(9)	1.48E+01	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Benzoic acid	2.40E+05	(2)	2.50E+06	(6)	6.45E+03	(9)	6.45E+03	-	<1.006	<0.502	<0.498	<2.505	<2.479	<2.507	<2.495	<2.515	<2.5	<4.947	<2.509	<2.487	<4.988
Benzyl alcohol	6.10E+03	(2)	6.20E+04	(6)	1.71E+02	(9)	1.71E+02	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Bis(2-chloroethoxy)methane	1.80E+02	(2)	1.80E+03	(6)	5.07E+00	(9)	5.07E+00	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Bis(2-chloroethyl)ether	2.68E+00	(1)	1.42E+01	(4)	1.21E-02	(9)	1.21E-02	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	0.43	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Bis(2-chloroisopropyl)ether	9.15E+01	(1)	4.54E+02	(4)	1.07E+00	(9)	1.07E+00	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Bis(2-ethylhexyl)phthalate	3.47E+02	(1)	1.37E+03	(4)	3.97E+03	(9)	3.47E+02	-	<1.006	<0.502	<0.498	<2.505	<2.479	<2.507	1.1	<2.515	<2.5	<4.947	<2.509	<2.487	<4.988
Butyl benzyl phthalate	2.60E+03	(3)	9.10E+03	(7)	9.22E+01	(9)	9.22E+01	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Carbazole	-	-	-	-	-	-	-	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Chrysene	1.48E+02	(1)	2.34E+03	(4)	3.68E+03	(9)	1.48E+02	-	<0.402	0.16	<0.199	<1.002	<0.992	<1.003	0.65	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Dibenz(a,h)anthracene	1.48E-01	(1)	2.34E+00	(4)	3.90E+01	(9)	1.48E-01	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Dibenzofuran	7.80E+01	(2)	1.00E+03	(6)	5.07E+01	(9)	5.07E+01	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Diethyl phthalate	4.89E+04	(1)	1.91E+05	(5)	4.45E+03	(9)	4.45E+03	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Dimethyl phthalate	6.11E+05	(1)	2.38E+06	(5)	3.71E+04	(9)	3.71E+04	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Di-n-butyl phthalate	6.11E+03	(1)	2.38E+04	(5)	3.21E+03	(9)	3.21E+03	-	<1.006	<0.502	<0.498	<2.505	<2.479	<2.507	<2.495	<2.515	<2.5	<4.947	<2.509	<2.487	<4.988
Di-n-octyl phthalate	-	-	-	-	-	-	-	-	<0.503	<0.251	<0.249	<1.253	<1.24	<1.253	<1.248	<1.258	<1.25	<2.474	<1.255	<1.243	<2.494
Fluoranthene	2.29E+03	(1)	8.91E+03	(5)	5.61E+04	(9)	2.29E+03	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Fluorene	2.29E+03	(1)	8.91E+03	(5)	9.36E+03	(9)	2.29E+03	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	0.86	<1.006	<1	<1.979	3	<0.995	<1.995
Hexachlorobenzene	3.04E+00	(1)	1.20E+01	(4)	1.83E+00	(9)	1.83E+00	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Hexachlorocyclopentadiene	3.67E+02	(1)	8.11E+02	(5)	2.43E+02	(9)	2.43E+02	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-12 (1.5-2.0')	SWMU 14-13 (0-0.5')	SWMU 14-13 (1.5-2.0')	SWMU 14-14 (0-0.5')	SWMU 14-14 (1.5-2.0')	SWMU 14-15 (0-0.5')	SWMU 14-15 (1.5-2.0')	SWMU 14-16 (0-0.5')	SWMU 14-16 (1.5-2.0')	SWMU 14-17 (0-0.5')	SWMU 14-17 (1.5-2.0')	SWMU 14-18 (0-0.5')	SWMU 14-18 (1.5-2.0')
									1207940-007	1207940-008	1207940-009	1207940-010	1207940-011	1207940-025	1207940-026	1207940-023	1207940-024	1207940-021	1207940-022	1207940-014	1207940-015
									7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012	7/19/2012
Hexachloroethane	4.28E+01	(1)	1.67E+02	(5)	3.77E+00	(9)	3.77E+00	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Indeno(1,2,3-cd)pyrene	1.48E+00	(1)	2.34E+01	(4)	3.98E+02	(9)	1.48E+00	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Isophorone	5.12E+03	(1)	4.75E+04	(5)	8.84E+01	(9)	8.84E+01	-	<1.006	<0.502	<0.498	<2.505	<2.479	<2.507	<2.495	<2.515	<2.5	<4.947	<2.509	<2.487	<4.988
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	1.6	<0.201	0.65	3.7	4.3	<1.003	1.7	<1.006	1.4	<1.979	7.1	<0.995	2.8
Nitrobenzene	5.35E+01	(1)	3.00E+02	(4)	2.88E-01	(9)	2.88E-01	-	<1.006	<0.502	<0.498	<2.505	<2.479	<2.507	<2.495	<2.515	<2.5	<4.947	<2.509	<2.487	<4.988
N-Nitrosodi-n-propylamine	6.90E-01	(3)	2.50E+00	(7)	3.23E-03	(9)	3.23E-03	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
N-Nitrosodiphenylamine	9.93E+02	(1)	3.91E+03	(4)	2.61E+02	(9)	2.61E+02	-	<0.402	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Pentachlorophenol	8.94E+00	(1)	3.00E+01	(4)	5.90E+00	(9)	5.90E+00	-	<0.805	<0.401	<0.398	<2.004	<1.983	<2.005	<1.996	<2.012	<2	<3.958	<2.007	<1.989	<3.991
Phenanthrene	1.83E+03	(1)	7.15E+03	(5)	1.32E+04	(9)	1.83E+03	-	1.2	1.4	0.6	6.6	6.2	<1.003	2.8	<1.006	1.7	<1.979	9.8	<0.995	2.2
Phenol	1.83E+04	(1)	6.88E+04	(5)	2.29E+03	(9)	2.29E+03	-	2.8	<0.201	<0.199	<1.002	<0.992	<1.003	<0.998	<1.006	<1	<1.979	<1.004	<0.995	<1.995
Pyrene	1.72E+03	(1)	6.68E+03	(5)	4.12E+04	(9)	1.72E+03	-	<0.402	0.21	0.11	1	0.68	<1.003	0.9	<1.006	<1	<1.979	2.6	<0.995	<1.995
Pyridine	7.80E+01	(2)	1.00E+03	(6)	2.44E+00	(9)	2.44E+00	-	<1.006	<0.502	<0.498	<2.505	<2.479	<2.507	<2.495	<2.515	<2.5	<4.947	<2.509	<2.487	<4.988
Total Petroleum Hydrocarbons - (EPA Method 8015B) mg/kg																					
Diesel Range Organics (DRO)	1.00E+03	(11)	1.00E+03	(11)	1.00E+03	(11)	-	-	**1500**	1000	**1300**	**7700**	**2800**	**1400**	**10000**	480	**4800**	**2900**	**13000**	**1200**	**14000**
Gasoline Range Organics (GRO)	-	-	-	-	-	-	-	-	370	43	58	450	60	27	1600	14	<250	<25	230	24	570
Motor Oil Range Organics (MRO)	3.00E+03	(12)	3.00E+03	(12)	3.00E+03	(12)	-	-	<486	<495	<495	<977	<496	<994	<5066	480	1100	2800	<2503	680	<2535

– No screening level or analytical result available

NMED - Risk Assessment Guidance for Site Investigations and Remediation (June 14, 2012)

EPA - Regional Screening Levels (November 2012)

(1) NMED Residential Screening Level

(2) EPA Residential Screening Level

(3) EPA Residential - Screening Levels (November 2012) multiplied by 10 because the constituent is listed as carcinogenic

(4) NMED Industrial Occupational Screening Level

(5) NMED Construction Worker Screening Level

(6) EPA Industrial - Screening Levels (Nov. 2012)

(7) EPA Industrial - Screening Levels (Nov. 2012) multiplied by 10

(8) SoilGW NMED Dilution Attenuation Factor (DAF) = 461

(9) SoilGW Risk-based EPA DAF = 461

(10) SoilGW MCL-based EPA DAF = 461

(11) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "uknown oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(12) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "waste oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(13) Background concentrations to be determined.

Bold represents value above Residential Screening Level

yellow highlight represents value above Leachate (DAF) Screening Level

Bold with yellow - value exceeds Residential Screening Level and

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-19 (0-0.5')	SWMU 14-19 (1.5-2.0')	SWMU 14-20 (0-0.5')	SWMU 14-21 (0-0.5')	SWMU 14-21 (1.5-2')	SWMU 14-21 (8-10')	SWMU 14-22 (0-0.5')	SWMU 14-22 (1.5-2')	SWMU 14-22 (4-6')	SWMU 14-22 (8-10')	SWMU 14-23 (0-0.5')	SWMU 14-23 (1.5-2')	SWMU 14-23 (12-14')	SWMU 14-23 (14-16')
									1207940-019	1207940-020	1207940-027	1210582-005	1210582-006	1210582-007	1210583-001	1210583-002	1210583-003	1210583-005	1210656-001	1210656-002	1210656-003	1210656-004
									7/19/2012	7/19/2012	7/19/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	10/10/2012	10/10/2012	10/10/2012	10/10/2012
Metals (mg/kg)																						
Antimony	3.13E+01	(1)	1.24E+02	(5)	3.05E+02	(9)	3.13E+01	-	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<5	<5	<5	<5	<5	<5	<5
Arsenic	3.90E+00	(1)	1.77E+01	(4)	6.05E+00	(9)	3.90E+00	-	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<4.9999	<4.9995	<4.9995	<5	<5	<5	<5
Barium	1.56E+04	(1)	4.35E+03	(5)	1.39E+05	(9)	4.35E+03	-	180	790	940	470	750	160	630	430	170	250	600	460	220	130
Beryllium	1.56E+02	(1)	1.44E+02	(5)	2.66E+04	(9)	1.44E+02	-	0.38	0.81	0.69	<0.75	<0.75	0.91	0.9	0.83	0.89	0.8	0.61	0.62	0.87	0.75
Cadmium	7.03E+01	(1)	2.77E+02	(5)	6.33E+02	(9)	7.03E+01	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Chromium III	1.17E+05	(1)	4.65E+05	(5)	4.54E+10	(9)	1.17E+05	-	6.6	12	9.4	5.7	7.4	8	12	10	7.6	9.3	9.6	15	8.3	7.8
Chromium VI	2.97E+00	(1)	6.31E+01	(4)	3.83E+00	(9)	2.97E+00	-	6.6	12	9.4	5.7	7.4	8	12	10	7.6	9.3	9.6	15	8.3	7.8
Cobalt	2.30E+01	(2)	3.00E+02	(6)	9.68E+01	(9)	2.30E+01	-	3.2	4.8	5.2	3.2	3.9	4.3	5.5	4.2	4.3	3.8	3.4	3.7	4	4
Cyanide	4.69E+01	(1)	1.86E+02	(5)	1.02E+02	(9)	4.69E+01	-	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.36	5.5	<0.3	<0.3
Iron	5.48E+04	(1)	2.17E+05	(5)	2.98E+05	(9)	5.48E+04	-	8200	12000	13000	11000	12000	12000	15000	14000	13000	13000	13000	12000	13000	12000
Lead	4.00E+02	(1)	8.00E+02	(5)	6.45E+03	(10)	4.00E+02	-	2.2	4.1	2.7	10	5	4.7	5.9	4.3	4	3.9	4.2	7.6	3.7	3.5
Manganese	1.86E+03	(1)	4.40E+02	(5)	2.64E+04	(9)	4.40E+02	-	300	640	650	550	550	220	550	540	370	270	720	570	300	570
Mercury	1.56E+01	(1)	1.36E+01	(5)	1.51E+01	(9)	1.36E+01	-	0.011	0.063	0.0064	<0.033	<0.033	<0.033	0.083	0.05	<0.033	<0.033	0.1	<0.033	<0.033	<0.033
Nickel	1.56E+03	(1)	6.19E+03	(5)	2.20E+04	(9)	1.56E+03	-	6.9	8	6.9	4.3	6.1	7.3	8.3	7.2	7.2	7.4	5.9	6.5	7.2	6.8
Selenium	3.91E+02	(1)	1.55E+03	(5)	4.45E+02	(9)	3.91E+02	-	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<5	<5	<5	<5	<5	<5	<5
Silver	3.91E+02	(1)	1.55E+03	(5)	7.22E+02	(9)	3.91E+02	-	<1.25	<1.25	<1.25	<1.25	<1.25	<1.25	<1.2499	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vanadium	3.91E+02	(1)	1.55E+03	(5)	8.42E+04	(9)	3.91E+02	-	22	21	21	17	16	14	25	17	13	13	18	16	14	15
Zinc	2.35E+04	(1)	9.29E+04	(5)	3.14E+05	(9)	2.35E+04	-	18	34	17	29	22	13	33	20	13	14	140	41	13	12
Volatile Organic Compounds - (EPA Method 8260) mg/kg																						
1,1,1,2-Tetrachloroethane	2.91E+01	(1)	1.61E+02	(4)	7.59E-01	(9)	7.59E-01	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
1,1,1-Trichloroethane	1.56E+04	(1)	1.48E+04	(5)	1.34E+03	(9)	1.34E+03	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
1,1,2,2-Tetrachloroethane	8.02E+00	(1)	4.35E+01	(4)	9.82E-02	(9)	9.82E-02	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
1,1,2-Trichloroethane	2.81E+00	(1)	1.33E+01	(4)	5.14E-02	(9)	5.14E-02	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
1,1-Dichloroethane	6.45E+01	(1)	3.59E+02	(4)	2.75E+00	(9)	2.75E+00	-	<0.1	<0.1	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<1	<0.1
1,1-Dichloroethene	4.49E+02	(1)	4.32E+02	(5)	5.36E+01	(9)	5.36E+01	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
1,1-Dichloropropene	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<1	<0.1
1,2,3-Trichlorobenzene	4.90E+01	(2)	4.90E+02	(6)	6.92E+00	(9)	6.92E+00	-	<0.1	<0.1	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<1	<0.1
1,2,3-Trichloropropane	4.97E-02	(1)	7.23E+00	(5)	1.15E-03	(9)	1.15E-03	-	<0.1	<0.1	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<1	<0.1
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
1,2,4-Trimethylbenzene	6.20E+01	(2)	2.60E+02	(6)	9.68E+00	(9)	9.68E+00	-	<0.05	<0.05	<0.001	0.00163	<0.001	<0.0009	0.00263	<0.0009	<0.001	<0.0011	0.00512	0.000894	<0.5	<0.05
1,2-Dibromo-3-chloropropane	1.86E+00	(1)	1.08E+00	(4)	5.07E-04	(9)	5.07E-04	-	<0.1	<0.1	<0.002	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<1	<0.1
1,2-Dibromoethane (EDB)	5.88E-01	(1)	3.22E+00	(4)	7.10E-03	(9)	7.10E-03	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
1,2-Dichloroethane (EDC)	7.89E+00	(1)	4.35E+01	(4)	1.64E-01	(9)	1.64E-01	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
1,2-Dichloropropane	1.52E+01	(1)	2.50E+01	(5)	4.94E-01	(9)	4.94E-01	-	<0.05	<0.05	<0.002	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
1,3,5-Trimethylbenzene	7.80E+02	(2)	1.00E+04	(6)	5.53E+01	(9)	5.53E+01	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	0.000983	<0.0009	<0.001	<0.0011	0.00205	<0.0007	<0.5	<0.05
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
1,3-Dichloropropane	1.60E+03	(2)	2.00E+04	(6)	4.56E+01	(9)	4.56E+01	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	0.02	0.022	<0.005	<0.0032	<0.0041	<0.0037	<0.0038	<0.0036	<0.004	<0.0045	<0.0043	<0.0029	2.3	<0.2
2,2-Dichloropropane	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<1	<0.1
2-Butanone (MEK)	3.71E+04	(1)	8.43E+04	(5)	5.87E+02	(9)	5.87E+02	-	<0.5	0.055	<0.006	0.0217	<0.0104	<0.0093	0.0165	<0.0089	<0.01	<0.0112	0.0188	<0.0073	<5	<0.5
2-Chlorotoluene	1.56E+03	(1)	6.19E+03	(5)	2.57E+02	(9)	2.57E+02	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
2-Hexanone	9.38E+02	(1)	9.73E+02	(5)	3.53E+03	(9)	9.38E+02	-	<0.5	<0.5	<0.006	<0.0081	<0.0104	<0.0093	<0.0095	<0.0089	<0.01	<0.0112	<0.0108	<0.0073	<5	<0.5
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	0.024	0.027	<0.005	<0.0032	<0.0041	<0.0037	<0.0038	<0.0036	<0.004	<0.0045	<0.0043	<0.0029	3.5	<0.2
4-Chlorotoluene	1.60E+03	(2)	2.00E+04	(6)	8.30E+01	(9)	8.30E+01	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
4-Isopropyltoluene	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-19 (0-0.5')	SWMU 14-19 (1.5-2.0')	SWMU 14-20 (0-0.5')	SWMU 14-21 (0-0.5')	SWMU 14-21 (1.5-2')	SWMU 14-21 (8-10')	SWMU 14-22 (0-0.5')	SWMU 14-22 (1.5-2')	SWMU 14-22 (4-6')	SWMU 14-22 (8-10')	SWMU 14-23 (0-0.5')	SWMU 14-23 (1.5-2')	SWMU 14-23 (12-14')	SWMU 14-23 (14-16')
									1207940-019	1207940-020	1207940-027	1210582-005	1210582-006	1210582-007	1210583-001	1210583-002	1210583-003	1210583-005	1210656-001	1210656-002	1210656-003	1210656-004
									7/19/2012	7/19/2012	7/19/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	10/10/2012	10/10/2012	10/10/2012	10/10/2012
4-Methyl-2-pentanone	5.30E+03	(2)	5.30E+04	(6)	1.06E+02	(9)	1.06E+02	-	<0.5	<0.5	<0.006	<0.0081	<0.0104	<0.0093	<0.0095	<0.0089	<0.01	<0.0112	0.0142	<0.0073	<5	<0.5
Acetone	6.66E+04	(1)	2.21E+05	(5)	1.78E+03	(9)	1.78E+03	-	0.14	<0.75	<0.034	0.627	0.0315	<0.0093	0.48	0.0505	0.0151	<0.0112	0.101	0.0383	<7.5	<0.75
Benzene	1.54E+01	(1)	8.47E+01	(4)	7.96E-01	(9)	7.96E-01	-	<0.05	<0.05	<0.001	0.00192	0.00145	<0.0009	0.00124	0.000971	0.0019	0.00171	0.00261	0.00151	1.1	<0.05
Bromobenzene	3.00E+02	(2)	1.80E+03	(6)	1.66E+01	(9)	1.66E+01	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
Bromodichloromethane	5.41E+00	(1)	3.01E+01	(4)	1.25E-01	(9)	1.25E-01	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
Bromoform	6.16E+02	(1)	2.42E+03	(4)	2.78E+02	(9)	2.78E+02	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
Bromomethane	1.65E+01	(1)	1.64E+01	(5)	8.86E-01	(9)	8.86E-01	-	<0.15	<0.15	-	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<1.5	<0.15
Carbon disulfide	1.53E+03	(1)	1.58E+03	(5)	1.30E+02	(9)	1.30E+02	-	<0.5	<0.5	<0.006	<0.0081	<0.0104	<0.0093	<0.0095	<0.0089	<0.01	<0.0112	<0.0108	<0.0073	<5	<0.5
Carbon tetrachloride	1.08E+01	(1)	5.98E+01	(4)	7.39E-01	(9)	7.39E-01	-	<0.1	<0.1	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<1	<0.1
Chlorobenzene	3.76E+02	(1)	4.06E+02	(5)	2.27E+01	(9)	2.27E+01	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
Chloroethane	2.98E+04	(1)	2.61E+04	(5)	2.48E+03	(9)	2.48E+03	-	<0.1	<0.1	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<1	<0.1
Chloroform	5.86E+00	(1)	3.27E+01	(4)	2.12E-01	(9)	2.12E-01	-	<0.05	0.0069	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
Chloromethane	2.75E+02	(1)	2.41E+02	(5)	2.03E+01	(9)	2.03E+01	-	<0.15	<0.15	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<1.5	<0.15
cis-1,2-DCE	1.56E+02	(1)	6.19E+02	(5)	8.47E+00	(9)	8.47E+00	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
cis-1,3-Dichloropropene	3.37E+01	(1)	1.77E+02	(4)	5.71E-01	(9)	5.71E-01	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
Dibromochloromethane	1.21E+01	(1)	6.24E+01	(4)	1.52E-01	(9)	1.52E-01	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
Dibromomethane	5.16E+01	(1)	2.54E+02	(4)	7.89E-01	(9)	7.89E-01	-	<0.1	<0.1	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<1	<0.1
Dichlorodifluoromethane	1.68E+02	(1)	1.49E+02	(5)	1.71E+02	(9)	1.49E+02	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
Ethylbenzene	6.84E+01	(1)	3.78E+02	(4)	5.98E+00	(9)	5.98E+00	-	<0.05	<0.05	<0.001	0.00194	<0.001	<0.0009	0.00152	<0.0009	<0.001	<0.0011	0.00207	<0.0007	3.8	<0.05
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<0.1	<0.1	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<1	<0.1
Isopropylbenzene	2.43E+03	(1)	2.81E+03	(5)	3.99E+02	(9)	3.99E+02	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	0.74	<0.05
Methyl tert-butyl ether (MTBE)	9.01E+02	(1)	4.89E+03	(4)	1.11E+01	(9)	1.11E+01	-	<0.05	<0.05	<0.002	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
Methylene chloride	4.09E+02	(1)	1.12E+03	(5)	1.90E+01	(9)	1.90E+01	-	0.048	0.016	<0.006	<0.0024	0.0142	0.00978	0.00694	<0.0027	<0.003	<0.0034	<0.0032	<0.0022	<1.5	<0.15
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	<0.1	<0.1	<0.001	<0.0016	<0.0021	<0.0019	<0.0019	<0.0018	<0.002	<0.0022	<0.0022	<0.0015	1.3	<0.1
n-Butylbenzene	3.90E+03	(2)	5.10E+04	(6)	1.15E+03	(9)	1.15E+03	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<1.5	<0.15
n-Propylbenzene	3.40E+03	(2)	2.10E+04	(6)	4.56E+02	(9)	4.56E+02	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	1.3	<0.05
sec-Butylbenzene	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	0.51	<0.05
Styrene	7.28E+03	(1)	9.99E+03	(5)	6.40E+02	(9)	6.40E+02	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
tert-Butylbenzene	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
Tetrachloroethene (PCE)	7.02E+00	(1)	3.66E+01	(4)	1.98E-01	(9)	1.98E-01	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
Toluene	5.27E+03	(1)	1.34E+04	(5)	5.84E+02	(9)	5.84E+02	-	<0.05	<0.05	<0.001	0.003	0.00126	<0.0009	0.00318	0.00135	0.00162	<0.0011	0.0075	0.00235	<0.5	<0.05
trans-1,2-DCE	2.70E+02	(1)	2.73E+02	(5)	1.24E+01	(9)	1.24E+01	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
Trichloroethene (TCE)	8.77E+00	(1)	7.68E+00	(5)	4.85E-01	(9)	4.85E-01	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
Trichlorofluoromethane	1.41E+03	(1)	1.30E+03	(5)	4.10E+02	(9)	4.10E+02	-	<0.05	<0.05	0.000525	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
Vinyl chloride	7.28E-01	(1)	2.61E+01	(4)	2.50E-02	(9)	2.50E-02	-	<0.05	<0.05	<0.001	<0.0008	<0.001	<0.0009	<0.0009	<0.0009	<0.001	<0.0011	<0.0011	<0.0007	<0.5	<0.05
Xylenes, Total	8.14E+02	(1)	7.43E+02	(5)	7.21E+01	(9)	7.21E+01	-	<0.1	<0.1	<0.003	0.0128	<0.0021	<0.0019	0.00894	<0.0018	<0.002	<0.0022	0.0103	<0.0015	<1	<0.1
Semi Volatile Organics - (EPA Method 8270) mg/kg																						
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
2,4,5-Trichlorophenol	6.11E+03	(1)	2.38E+04	(5)	4.78E+03	(9)	4.78E+03	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
2,4,6-Trichlorophenol	6.11E+01	(1)	2.38E+02	(5)	4.78E+01	(9)	4.78E+01	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
2,4-Dichlorophenol	1.83E+02	(1)	7.15E+02	(5)	4.60E+01	(9)	4.60E+01	-	<2.007	<3.954	<0.8	<0.3992	<0.3991	<0.3966	<0.3989	<0.3955	<0.4036	<0.3979	<0.7997	<1.973	<0.3963	<0.4034
2,4-Dimethylphenol	1.22E+03	(1)	4.76E+03	(5)	3.07E+02	(9)	3.07E+02	-	<1.506	<2.965	<0.6	<0.2994	<0.2993	<0.2974	<0.2992	<0.2966	<0.3027	<0.2984	<0.5998	<1.4798	<0.2972	<0.3025
2,4-Dinitrophenol	1.22E+02	(1)	4.76E+02	(5)	2.91E+01	(9)	2.91E+01	-	<2.007	<3.954	<0.8	<0.3992	<0.3991	<0.3966	<0.3989	<0.3955	<0.4036	<0.3979	<0.7997	<1.973	<0.3963	<0.4034

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-19 (0-0.5')	SWMU 14-19 (1.5-2.0')	SWMU 14-20 (0-0.5')	SWMU 14-21 (0-0.5')	SWMU 14-21 (1.5-2')	SWMU 14-21 (8-10')	SWMU 14-22 (0-0.5')	SWMU 14-22 (1.5-2')	SWMU 14-22 (4-6')	SWMU 14-22 (8-10')	SWMU 14-23 (0-0.5')	SWMU 14-23 (1.5-2')	SWMU 14-23 (12-14')	SWMU 14-23 (14-16')
									1207940-019	1207940-020	1207940-027	1210582-005	1210582-006	1210582-007	1210583-001	1210583-002	1210583-003	1210583-005	1210656-001	1210656-002	1210656-003	1210656-004
									7/19/2012	7/19/2012	7/19/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	10/10/2012	10/10/2012	10/10/2012	10/10/2012
2,4-Dinitrotoluene	1.57E+01	(1)	6.18E+01	(4)	1.04E+00	(9)	1.04E+00	-	<2.509	<4.942	<1	<0.499	<0.4988	<0.4957	<0.4987	<0.4944	<0.5045	<0.4973	<0.9997	<2.4663	<0.4954	<0.5042
2,6-Dinitrotoluene	6.11E+01	(1)	2.38E+02	(5)	1.77E+01	(9)	1.77E+01	-	<2.509	<4.942	<1	<0.499	<0.4988	<0.4957	<0.4987	<0.4944	<0.5045	<0.4973	<0.9997	<2.4663	<0.4954	<0.5042
2-Chloronaphthalene	6.11E+01	(1)	1.49E+02	(4)	4.01E-01	(9)	4.01E-01	-	<1.255	<2.471	<0.5	<0.2495	<0.2494	<0.2479	<0.2493	<0.2472	<0.2523	<0.2487	<0.4998	<1.2331	<0.2477	<0.2521
2-Chlorophenol	3.91E+02	(1)	1.55E+03	(5)	5.33E+01	(9)	5.33E+01	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
2-Methylphenol	3.10E+03	(2)	3.10E+04	(6)	2.67E+02	(9)	2.67E+02	-	<2.509	<4.942	<1	<0.499	<0.4988	<0.4957	<0.4987	<0.4944	<0.5045	<0.4973	<0.9997	<2.4663	<0.4954	<0.5042
2-Nitroaniline	6.10E+02	(2)	6.00E+03	(6)	2.86E+01	(9)	2.86E+01	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
2-Nitrophenol	-	-	-	-	-	-	-	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
3,3´-Dichlorobenzidine	1.08E+01	(1)	4.26E+01	(4)	3.41E+00	(9)	3.41E+00	-	<1.255	<2.471	<0.5	<0.2495	<0.2494	<0.2479	<0.2493	<0.2472	<0.2523	<0.2487	<0.4998	<1.2331	<0.2477	<0.2521
3+4-Methylphenol	-	-	-	-	-	-	-	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
3-Nitroaniline	-	-	-	-	-	-	-	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
4,6-Dinitro-2-methylphenol	4.90E+00	(2)	4.90E+01	(6)	9.22E-01	(9)	9.22E-01	-	<2.509	<4.942	<1	<0.499	<0.4988	<0.4957	<0.4987	<0.4944	<0.5045	<0.4973	<0.9997	<2.4663	<0.4954	<0.5042
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
4-Chloro-3-methylphenol	6.10E+03	(2)	6.20E+04	(6)	5.99E+02	(9)	5.99E+02	-	<2.509	<4.942	<1	<0.499	<0.4988	<0.4957	<0.4987	<0.4944	<0.5045	<0.4973	<0.9997	<2.4663	<0.4954	<0.5042
4-Chloroaniline	2.40E+01	(3)	8.60E+01	(7)	5.99E-02	(9)	5.99E-02	-	<2.509	<4.942	<1	<0.499	<0.4988	<0.4957	<0.4987	<0.4944	<0.5045	<0.4973	<0.9997	<2.4663	<0.4954	<0.5042
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
4-Nitroaniline	2.40E+02	(3)	8.60E+02	(7)	6.45E-01	(9)	6.45E-01	-	<2.007	<3.954	<0.8	<0.3992	<0.3991	<0.3966	<0.3989	<0.3955	<0.4036	<0.3979	<0.7997	<1.973	<0.3963	<0.4034
4-Nitrophenol	-	-	-	-	-	-	-	-	<1.255	<2.471	<0.5	<0.2495	<0.2494	<0.2479	<0.2493	<0.2472	<0.2523	<0.2487	<0.4998	<1.2331	<0.2477	<0.2521
Acenaphthene	3.44E+03	(1)	1.86E+04	(5)	7.79E+03	(9)	3.44E+03	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Acenaphthylene	-	-	-	-	-	-	-	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Aniline	8.50E+02	(3)	3.00E+03	(7)	1.80E+00	(9)	1.80E+00	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Anthracene	1.72E+04	(1)	6.68E+04	(5)	1.25E+05	(9)	1.72E+04	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Azobenzene	5.10E+01	(3)	2.30E+02	(7)	3.69E-01	(9)	3.69E-01	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Benz(a)anthracene	1.48E+00	(1)	2.34E+01	(4)	3.61E+01	(9)	1.48E+00	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Benzo(a)pyrene	1.48E-01	(1)	2.34E+00	(4)	1.20E+01	(9)	1.48E-01	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Benzo(b)fluoranthene	1.48E+00	(1)	2.34E+01	(4)	1.22E+02	(9)	1.48E+00	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Benzo(k)fluoranthene	1.48E+01	(1)	2.34E+02	(4)	1.20E+03	(9)	1.48E+01	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Benzoic acid	2.40E+05	(2)	2.50E+06	(6)	6.45E+03	(9)	6.45E+03	-	<2.509	<4.942	<1	<0.499	<0.4988	<0.4957	<0.4987	<0.4944	<0.5045	<0.4973	<0.9997	<2.4663	<0.4954	<0.5042
Benzyl alcohol	6.10E+03	(2)	6.20E+04	(6)	1.71E+02	(9)	1.71E+02	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	0.26	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Bis(2-chloroethoxy)methane	1.80E+02	(2)	1.80E+03	(6)	5.07E+00	(9)	5.07E+00	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Bis(2-chloroethyl)ether	2.68E+00	(1)	1.42E+01	(4)	1.21E-02	(9)	1.21E-02	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Bis(2-chloroisopropyl)ether	9.15E+01	(1)	4.54E+02	(4)	1.07E+00	(9)	1.07E+00	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Bis(2-ethylhexyl)phthalate	3.47E+02	(1)	1.37E+03	(4)	3.97E+03	(9)	3.47E+02	-	<2.509	<4.942	<1	<0.499	<0.4988	<0.4957	<0.4987	<0.4944	<0.5045	<0.4973	<0.9997	<2.4663	<0.4954	<0.5042
Butyl benzyl phthalate	2.60E+03	(3)	9.10E+03	(7)	9.22E+01	(9)	9.22E+01	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Carbazole	-	-	-	-	-	-	-	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Chrysene	1.48E+02	(1)	2.34E+03	(4)	3.68E+03	(9)	1.48E+02	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Dibenz(a,h)anthracene	1.48E-01	(1)	2.34E+00	(4)	3.90E+01	(9)	1.48E-01	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Dibenzofuran	7.80E+01	(2)	1.00E+03	(6)	5.07E+01	(9)	5.07E+01	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Diethyl phthalate	4.89E+04	(1)	1.91E+05	(5)	4.45E+03	(9)	4.45E+03	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Dimethyl phthalate	6.11E+05	(1)	2.38E+06	(5)	3.71E+04	(9)	3.71E+04	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Di-n-butyl phthalate	6.11E+03	(1)	2.38E+04	(5)	3.21E+03	(9)	3.21E+03	-	<2.509	<4.942	<1	<0.499	<0.4988	<0.4957	<0.4987	<0.4944	<0.5045	<0.4973	<0.9997	<2.4663	<0.4954	<0.5042
Di-n-octyl phthalate	-	-	-	-	-	-	-	-	<1.255	<2.471	<0.5	<0.2495	<0.2494	<0.2479	<0.2493	<0.2472	<0.2523	<0.2487	<0.7997	<1.973	<0.3963	<0.4034
Fluoranthene	2.29E+03	(1)	8.91E+03	(5)	5.61E+04	(9)	2.29E+03	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Fluorene	2.29E+03	(1)	8.91E+03	(5)	9.36E+03	(9)	2.29E+03	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Hexachlorobenzene	3.04E+00	(1)	1.20E+01	(4)	1.83E+00	(9)	1.83E+00	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Hexachlorocyclopentadiene	3.67E+02	(1)	8.11E+02	(5)	2.43E+02	(9)	2.43E+02	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017

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Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-19 (0-0.5')	SWMU 14-19 (1.5-2.0')	SWMU 14-20 (0-0.5')	SWMU 14-21 (0-0.5')	SWMU 14-21 (1.5-2')	SWMU 14-21 (8-10')	SWMU 14-22 (0-0.5')	SWMU 14-22 (1.5-2')	SWMU 14-22 (4-6')	SWMU 14-22 (8-10')	SWMU 14-23 (0-0.5')	SWMU 14-23 (1.5-2')	SWMU 14-23 (12-14')	SWMU 14-23 (14-16')
									1207940-019	1207940-020	1207940-027	1210582-005	1210582-006	1210582-007	1210583-001	1210583-002	1210583-003	1210583-005	1210656-001	1210656-002	1210656-003	1210656-004
									7/19/2012	7/19/2012	7/19/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	10/9/2012	10/10/2012	10/10/2012	10/10/2012	10/10/2012
Hexachloroethane	4.28E+01	(1)	1.67E+02	(5)	3.77E+00	(9)	3.77E+00	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Indeno(1,2,3-cd)pyrene	1.48E+00	(1)	2.34E+01	(4)	3.98E+02	(9)	1.48E+00	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Isophorone	5.12E+03	(1)	4.75E+04	(5)	8.84E+01	(9)	8.84E+01	-	<2.509	<4.942	<1	<0.499	<0.4988	<0.4957	<0.4987	<0.4944	<0.5045	<0.4973	<0.9997	<2.4663	<0.4954	<0.5042
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Nitrobenzene	5.35E+01	(1)	3.00E+02	(4)	2.88E-01	(9)	2.88E-01	-	<2.509	<4.942	<1	<0.499	<0.4988	<0.4957	<0.4987	<0.4944	<0.5045	<0.4973	<0.9997	<2.4663	<0.4954	<0.5042
N-Nitrosodi-n-propylamine	6.90E-01	(3)	2.50E+00	(7)	3.23E-03	(9)	3.23E-03	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
N-Nitrosodiphenylamine	9.93E+02	(1)	3.91E+03	(4)	2.61E+02	(9)	2.61E+02	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Pentachlorophenol	8.94E+00	(1)	3.00E+01	(4)	5.90E+00	(9)	5.90E+00	-	<2.007	<3.954	<0.8	<0.3992	<0.3991	<0.3966	<0.3989	<0.3955	<0.4036	<0.3979	<0.7997	<1.973	<0.3963	<0.4034
Phenanthrene	1.83E+03	(1)	7.15E+03	(5)	1.32E+04	(9)	1.83E+03	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Phenol	1.83E+04	(1)	6.88E+04	(5)	2.29E+03	(9)	2.29E+03	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Pyrene	1.72E+03	(1)	6.68E+03	(5)	4.12E+04	(9)	1.72E+03	-	<1.004	<1.977	<0.4	<0.1996	<0.1995	<0.1983	<0.1995	<0.1978	<0.2018	<0.1989	<0.3999	<0.9865	<0.1982	<0.2017
Pyridine	7.80E+01	(2)	1.00E+03	(6)	2.44E+00	(9)	2.44E+00	-	<2.509	<4.942	<1	<0.499	<0.4988	<0.4957	<0.4987	<0.4944	<0.5045	<0.4973	<0.9997	<2.4663	<0.4954	<0.5042
Total Petroleum Hydrocarbons - (EPA Method 8015B) mg/kg																						
Diesel Range Organics (DRO)	1.00E+03	(11)	1.00E+03	(11)	1.00E+03	(11)	-	-	<10	29	<10	21	<10	<10	150	90	<10	<10	45	32	140	19
Gasoline Range Organics (GRO)	-	-	-	-	-	-	-	-	1.2	<5	1.7	<5	<5	<5	<5	<5	<5	<5	<5	<5	160	<5
Motor Oil Range Organics (MRO)	3.00E+03	(12)	3.00E+03	(12)	3.00E+03	(12)	-	-	<49	51	<50	<50	<51	<50	96	60	<48	<48	<50	75	<49	<49

– No screening level or analytical result available

NMED - Risk Assessment Guidance for Site Investigations and Remediation (June 14, 2012)

EPA - Regional Screening Levels (November 2012)

(1) NMED Residential Screening Level

(2) EPA Residential Screening Level

(3) EPA Residential - Screening Levels (November 2012) multiplied by 10 because the constituent is listed as carcinogenic

(4) NMED Industrial Occupational Screening Level

(5) NMED Construction Worker Screening Level

(6) EPA Industrial - Screening Levels (Nov. 2012)

(7) EPA Industrial - Screening Levels (Nov. 2012) multiplied by 10

(8) SoilGW NMED Dilution Attenuation Factor (DAF) = 461

(9) SoilGW Risk-based EPA DAF = 461

(10) SoilGW MCL-based EPA DAF = 461

(11) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "uknown oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(12) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "waste oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(13) Background concentrations to be determined.

Bold represents value above Residential Screening Level

yellow highlight represents value above Leachate (DAF) Screening Level

Bold with yellow - value exceeds Residential Screening Level and

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-24 (0-0.5')	SWMU 14-24 (1.5-2')
									1210860-001	1210860-002
									10/17/2012	10/17/2012
Metals (mg/kg)										
Antimony	3.13E+01	(1)	1.24E+02	(5)	3.05E+02	(9)	3.13E+01	-	<5	<5
Arsenic	3.90E+00	(1)	1.77E+01	(4)	6.05E+00	(9)	3.90E+00	-	<5	<5
Barium	1.56E+04	(1)	4.35E+03	(5)	1.39E+05	(9)	4.35E+03	-	440	43
Beryllium	1.56E+02	(1)	1.44E+02	(5)	2.66E+04	(9)	1.44E+02	-	0.8	0.83
Cadmium	7.03E+01	(1)	2.77E+02	(5)	6.33E+02	(9)	7.03E+01	-	<0.2	<0.2
Chromium III	1.17E+05	(1)	4.65E+05	(5)	4.54E+10	(9)	1.17E+05	-	10	7.8
Chromium VI	2.97E+00	(1)	6.31E+01	(4)	3.83E+00	(9)	2.97E+00	-	10	7.8
Cobalt	2.30E+01	(2)	3.00E+02	(6)	9.68E+01	(9)	2.30E+01	-	4.6	3.5
Cyanide	4.69E+01	(1)	1.86E+02	(5)	1.02E+02	(9)	4.69E+01	-	<0.263	<0.311
Iron	5.48E+04	(1)	2.17E+05	(5)	2.98E+05	(9)	5.48E+04	-	15000	16000
Lead	4.00E+02	(1)	8.00E+02	(5)	6.45E+03	(10)	4.00E+02	-	2.5	3.3
Manganese	1.86E+03	(1)	4.40E+02	(5)	2.64E+04	(9)	4.40E+02	-	450	230
Mercury	1.56E+01	(1)	1.36E+01	(5)	1.51E+01	(9)	1.36E+01	-	<0.033	<0.033
Nickel	1.56E+03	(1)	6.19E+03	(5)	2.20E+04	(9)	1.56E+03	-	8	6.4
Selenium	3.91E+02	(1)	1.55E+03	(5)	4.45E+02	(9)	3.91E+02	-	<5	<5
Silver	3.91E+02	(1)	1.55E+03	(5)	7.22E+02	(9)	3.91E+02	-	<0.5	<0.5
Vanadium	3.91E+02	(1)	1.55E+03	(5)	8.42E+04	(9)	3.91E+02	-	22	14
Zinc	2.35E+04	(1)	9.29E+04	(5)	3.14E+05	(9)	2.35E+04	-	25	12
Volatile Organic Compounds - (EPA Method 8260) mg/kg										
1,1,1,2-Tetrachloroethane	2.91E+01	(1)	1.61E+02	(4)	7.59E-01	(9)	7.59E-01	-	<0.0008	<0.0008
1,1,1-Trichloroethane	1.56E+04	(1)	1.48E+04	(5)	1.34E+03	(9)	1.34E+03	-	<0.0008	<0.0008
1,1,2,2-Tetrachloroethane	8.02E+00	(1)	4.35E+01	(4)	9.82E-02	(9)	9.82E-02	-	<0.0008	<0.0008
1,1,2-Trichloroethane	2.81E+00	(1)	1.33E+01	(4)	5.14E-02	(9)	5.14E-02	-	<0.0008	<0.0008
1,1-Dichloroethane	6.45E+01	(1)	3.59E+02	(4)	2.75E+00	(9)	2.75E+00	-	<0.0008	<0.0008
1,1-Dichloroethene	4.49E+02	(1)	4.32E+02	(5)	5.36E+01	(9)	5.36E+01	-	<0.0008	<0.0008
1,1-Dichloropropene	-	-	-	-	-	-	-	-	<0.0008	<0.0008
1,2,3-Trichlorobenzene	4.90E+01	(2)	4.90E+02	(6)	6.92E+00	(9)	6.92E+00	-	<0.0008	<0.0008
1,2,3-Trichloropropane	4.97E-02	(1)	7.23E+00	(5)	1.15E-03	(9)	1.15E-03	-	<0.0008	<0.0008
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<0.0008	<0.0008
1,2,4-Trimethylbenzene	6.20E+01	(2)	2.60E+02	(6)	9.68E+00	(9)	9.68E+00	-	0.000935	<0.0008
1,2-Dibromo-3-chloropropane	1.86E+00	(1)	1.08E+00	(4)	5.07E-04	(9)	5.07E-04	-	<0.0008	<0.0008
1,2-Dibromoethane (EDB)	5.88E-01	(1)	3.22E+00	(4)	7.10E-03	(9)	7.10E-03	-	<0.0008	<0.0008
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<0.0008	<0.0008
1,2-Dichloroethane (EDC)	7.89E+00	(1)	4.35E+01	(4)	1.64E-01	(9)	1.64E-01	-	<0.0008	<0.0008
1,2-Dichloropropane	1.52E+01	(1)	2.50E+01	(5)	4.94E-01	(9)	4.94E-01	-	<0.0008	<0.0008
1,3,5-Trimethylbenzene	7.80E+02	(2)	1.00E+04	(6)	5.53E+01	(9)	5.53E+01	-	<0.0008	<0.0008
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<0.0008	<0.0008
1,3-Dichloropropane	1.60E+03	(2)	2.00E+04	(6)	4.56E+01	(9)	4.56E+01	-	<0.0008	<0.0008
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<0.0008	<0.0008
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	<0.0032	<0.0031
2,2-Dichloropropane	-	-	-	-	-	-	-	-	<0.0008	<0.0008
2-Butanone (MEK)	3.71E+04	(1)	8.43E+04	(5)	5.87E+02	(9)	5.87E+02	-	0.00846	<0.0078
2-Chlorotoluene	1.56E+03	(1)	6.19E+03	(5)	2.57E+02	(9)	2.57E+02	-	<0.0008	<0.0008
2-Hexanone	9.38E+02	(1)	9.73E+02	(5)	3.53E+03	(9)	9.38E+02	-	<0.008	<0.0078
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	<0.0032	<0.0031
4-Chlorotoluene	1.60E+03	(2)	2.00E+04	(6)	8.30E+01	(9)	8.30E+01	-	<0.0008	<0.0008
4-Isopropyltoluene	-	-	-	-	-	-	-	-	<0.0008	<0.0008

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-24 (0-0.5')	SWMU 14-24 (1.5-2')
									1210860-001	1210860-002
									10/17/2012	10/17/2012
4-Methyl-2-pentanone	5.30E+03	(2)	5.30E+04	(6)	1.06E+02	(9)	1.06E+02	-	<0.008	<0.0078
Acetone	6.66E+04	(1)	2.21E+05	(5)	1.78E+03	(9)	1.78E+03	-	0.048	0.0202
Benzene	1.54E+01	(1)	8.47E+01	(4)	7.96E-01	(9)	7.96E-01	-	0.00213	0.00129
Bromobenzene	3.00E+02	(2)	1.80E+03	(6)	1.66E+01	(9)	1.66E+01	-	<0.0008	<0.0008
Bromodichloromethane	5.41E+00	(1)	3.01E+01	(4)	1.25E-01	(9)	1.25E-01	-	<0.0008	<0.0008
Bromoform	6.16E+02	(1)	2.42E+03	(4)	2.78E+02	(9)	2.78E+02	-	<0.0008	<0.0008
Bromomethane	1.65E+01	(1)	1.64E+01	(5)	8.86E-01	(9)	8.86E-01	-	<0.0008	<0.0008
Carbon disulfide	1.53E+03	(1)	1.58E+03	(5)	1.30E+02	(9)	1.30E+02	-	<0.008	<0.0078
Carbon tetrachloride	1.08E+01	(1)	5.98E+01	(4)	7.39E-01	(9)	7.39E-01	-	<0.0008	<0.0008
Chlorobenzene	3.76E+02	(1)	4.06E+02	(5)	2.27E+01	(9)	2.27E+01	-	<0.0008	<0.0008
Chloroethane	2.98E+04	(1)	2.61E+04	(5)	2.48E+03	(9)	2.48E+03	-	<0.0008	<0.0008
Chloroform	5.86E+00	(1)	3.27E+01	(4)	2.12E-01	(9)	2.12E-01	-	<0.0008	<0.0008
Chloromethane	2.75E+02	(1)	2.41E+02	(5)	2.03E+01	(9)	2.03E+01	-	<0.0008	<0.0008
cis-1,2-DCE	1.56E+02	(1)	6.19E+02	(5)	8.47E+00	(9)	8.47E+00	-	<0.0008	<0.0008
cis-1,3-Dichloropropene	3.37E+01	(1)	1.77E+02	(4)	5.71E-01	(9)	5.71E-01	-	<0.0008	<0.0008
Dibromochloromethane	1.21E+01	(1)	6.24E+01	(4)	1.52E-01	(9)	1.52E-01	-	<0.0008	<0.0008
Dibromomethane	5.16E+01	(1)	2.54E+02	(4)	7.89E-01	(9)	7.89E-01	-	<0.0008	<0.0008
Dichlorodifluoromethane	1.68E+02	(1)	1.49E+02	(5)	1.71E+02	(9)	1.49E+02	-	<0.0008	<0.0008
Ethylbenzene	6.84E+01	(1)	3.78E+02	(4)	5.98E+00	(9)	5.98E+00	-	<0.0008	<0.0008
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<0.0008	<0.0008
Isopropylbenzene	2.43E+03	(1)	2.81E+03	(5)	3.99E+02	(9)	3.99E+02	-	<0.0008	<0.0008
Methyl tert-butyl ether (MTBE)	9.01E+02	(1)	4.89E+03	(4)	1.11E+01	(9)	1.11E+01	-	<0.0008	<0.0008
Methylene chloride	4.09E+02	(1)	1.12E+03	(5)	1.90E+01	(9)	1.90E+01	-	<0.0024	<0.0023
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	<0.0016	<0.0016
n-Butylbenzene	3.90E+03	(2)	5.10E+04	(6)	1.15E+03	(9)	1.15E+03	-	<0.0008	<0.0008
n-Propylbenzene	3.40E+03	(2)	2.10E+04	(6)	4.56E+02	(9)	4.56E+02	-	<0.0008	<0.0008
sec-Butylbenzene	-	-	-	-	-	-	-	-	<0.0008	<0.0008
Styrene	7.28E+03	(1)	9.99E+03	(5)	6.40E+02	(9)	6.40E+02	-	<0.0008	<0.0008
tert-Butylbenzene	-	-	-	-	-	-	-	-	<0.0008	<0.0008
Tetrachloroethene (PCE)	7.02E+00	(1)	3.66E+01	(4)	1.98E-01	(9)	1.98E-01	-	<0.0008	<0.0008
Toluene	5.27E+03	(1)	1.34E+04	(5)	5.84E+02	(9)	5.84E+02	-	0.00222	0.000908
trans-1,2-DCE	2.70E+02	(1)	2.73E+02	(5)	1.24E+01	(9)	1.24E+01	-	<0.0008	<0.0008
trans-1,3-Dichloropropene	-	-	-	-	-	-	-	-	<0.0008	<0.0008
Trichloroethene (TCE)	8.77E+00	(1)	7.68E+00	(5)	4.85E-01	(9)	4.85E-01	-	<0.0008	<0.0008
Trichlorofluoromethane	1.41E+03	(1)	1.30E+03	(5)	4.10E+02	(9)	4.10E+02	-	<0.0008	<0.0008
Vinyl chloride	7.28E-01	(1)	2.61E+01	(4)	2.50E-02	(9)	2.50E-02	-	<0.0008	<0.0008
Xylenes, Total	8.14E+02	(1)	7.43E+02	(5)	7.21E+01	(9)	7.21E+01	-	0.0038	<0.0016
Semi Volatile Organics - (EPA Method 8270) mg/kg										
1,2,4-Trichlorobenzene	7.30E+01	(1)	6.87E+01	(5)	4.21E+00	(9)	4.21E+00	-	<0.1997	<0.1997
1,2-Dichlorobenzene	2.31E+03	(1)	2.71E+03	(5)	1.29E+02	(9)	1.29E+02	-	<0.1997	<0.1997
1,3-Dichlorobenzene	-	-	-	-	-	-	-	-	<0.1997	<0.1997
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	1.47E+00	(9)	1.47E+00	-	<0.1997	<0.1997
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	2.35E+00	(9)	2.35E+00	-	<0.1997	<0.1997
2,4,5-Trichlorophenol	6.11E+03	(1)	2.38E+04	(5)	4.78E+03	(9)	4.78E+03	-	<0.1997	<0.1997
2,4,6-Trichlorophenol	6.11E+01	(1)	2.38E+02	(5)	4.78E+01	(9)	4.78E+01	-	<0.1997	<0.1997
2,4-Dichlorophenol	1.83E+02	(1)	7.15E+02	(5)	4.60E+01	(9)	4.60E+01	-	<0.3995	<0.3993
2,4-Dimethylphenol	1.22E+03	(1)	4.76E+03	(5)	3.07E+02	(9)	3.07E+02	-	<0.2996	<0.2995
2,4-Dinitrophenol	1.22E+02	(1)	4.76E+02	(5)	2.91E+01	(9)	2.91E+01	-	<0.3995	<0.3993

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									1210860-001	1210860-002
									10/17/2012	10/17/2012
2,4-Dinitrotoluene	1.57E+01	(1)	6.18E+01	(4)	1.04E+00	(9)	1.04E+00	-	<0.4993	<0.4992
2,6-Dinitrotoluene	6.11E+01	(1)	2.38E+02	(5)	1.77E+01	(9)	1.77E+01	-	<0.4993	<0.4992
2-Chloronaphthalene	6.11E+01	(1)	1.49E+02	(4)	4.01E-01	(9)	4.01E-01	-	<0.2497	<0.2496
2-Chlorophenol	3.91E+02	(1)	1.55E+03	(5)	5.33E+01	(9)	5.33E+01	-	<0.1997	<0.1997
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	6.45E+01	(9)	6.45E+01	-	<0.1997	<0.1997
2-Methylphenol	3.10E+03	(2)	3.10E+04	(6)	2.67E+02	(9)	2.67E+02	-	<0.4993	<0.4992
2-Nitroaniline	6.10E+02	(2)	6.00E+03	(6)	2.86E+01	(9)	2.86E+01	-	<0.1997	<0.1997
2-Nitrophenol	-	-	-	-	-	-	-	-	<0.1997	<0.1997
3,3'-Dichlorobenzidine	1.08E+01	(1)	4.26E+01	(4)	3.41E+00	(9)	3.41E+00	-	<0.2497	<0.2496
3+4-Methylphenol	-	-	-	-	-	-	-	-	<0.1997	<0.1997
3-Nitroaniline	-	-	-	-	-	-	-	-	<0.1997	<0.1997
4,6-Dinitro-2-methylphenol	4.90E+00	(2)	4.90E+01	(6)	9.22E-01	(9)	9.22E-01	-	<0.4993	<0.4992
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-	-	<0.1997	<0.1997
4-Chloro-3-methylphenol	6.10E+03	(2)	6.20E+04	(6)	5.99E+02	(9)	5.99E+02	-	<0.4993	<0.4992
4-Chloroaniline	2.40E+01	(3)	8.60E+01	(7)	5.99E-02	(9)	5.99E-02	-	<0.4993	<0.4992
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-	-	<0.1997	<0.1997
4-Nitroaniline	2.40E+02	(3)	8.60E+02	(7)	6.45E-01	(9)	6.45E-01	-	<0.3995	<0.3993
4-Nitrophenol	-	-	-	-	-	-	-	-	<0.2497	<0.2496
Acenaphthene	3.44E+03	(1)	1.86E+04	(5)	7.79E+03	(9)	3.44E+03	-	<0.1997	<0.1997
Acenaphthylene	-	-	-	-	-	-	-	-	<0.1997	<0.1997
Aniline	8.50E+02	(3)	3.00E+03	(7)	1.80E+00	(9)	1.80E+00	-	<0.1997	<0.1997
Anthracene	1.72E+04	(1)	6.68E+04	(5)	1.25E+05	(9)	1.72E+04	-	<0.1997	<0.1997
Azobenzene	5.10E+01	(3)	2.30E+02	(7)	3.69E-01	(9)	3.69E-01	-	<0.1997	<0.1997
Benz(a)anthracene	1.48E+00	(1)	2.34E+01	(4)	3.61E+01	(9)	1.48E+00	-	<0.1997	<0.1997
Benzo(a)pyrene	1.48E-01	(1)	2.34E+00	(4)	1.20E+01	(9)	1.48E-01	-	<0.1997	<0.1997
Benzo(b)fluoranthene	1.48E+00	(1)	2.34E+01	(4)	1.22E+02	(9)	1.48E+00	-	<0.1997	<0.1997
Benzo(g,h,i)perylene	-	-	-	-	-	-	-	-	<0.1997	<0.1997
Benzo(k)fluoranthene	1.48E+01	(1)	2.34E+02	(4)	1.20E+03	(9)	1.48E+01	-	<0.1997	<0.1997
Benzoic acid	2.40E+05	(2)	2.50E+06	(6)	6.45E+03	(9)	6.45E+03	-	<0.4993	<0.4992
Benzyl alcohol	6.10E+03	(2)	6.20E+04	(6)	1.71E+02	(9)	1.71E+02	-	0.32	<0.1997
Bis(2-chloroethoxy)methane	1.80E+02	(2)	1.80E+03	(6)	5.07E+00	(9)	5.07E+00	-	<0.1997	<0.1997
Bis(2-chloroethyl)ether	2.68E+00	(1)	1.42E+01	(4)	1.21E-02	(9)	1.21E-02	-	<0.1997	<0.1997
Bis(2-chloroisopropyl)ether	9.15E+01	(1)	4.54E+02	(4)	1.07E+00	(9)	1.07E+00	-	<0.1997	<0.1997
Bis(2-ethylhexyl)phthalate	3.47E+02	(1)	1.37E+03	(4)	3.97E+03	(9)	3.47E+02	-	<0.4993	<0.4992
Butyl benzyl phthalate	2.60E+03	(3)	9.10E+03	(7)	9.22E+01	(9)	9.22E+01	-	<0.1997	<0.1997
Carbazole	-	-	-	-	-	-	-	-	<0.1997	<0.1997
Chrysene	1.48E+02	(1)	2.34E+03	(4)	3.68E+03	(9)	1.48E+02	-	<0.1997	<0.1997
Dibenz(a,h)anthracene	1.48E-01	(1)	2.34E+00	(4)	3.90E+01	(9)	1.48E-01	-	<0.1997	<0.1997
Dibenzofuran	7.80E+01	(2)	1.00E+03	(6)	5.07E+01	(9)	5.07E+01	-	<0.1997	<0.1997
Diethyl phthalate	4.89E+04	(1)	1.91E+05	(5)	4.45E+03	(9)	4.45E+03	-	<0.1997	<0.1997
Dimethyl phthalate	6.11E+05	(1)	2.38E+06	(5)	3.71E+04	(9)	3.71E+04	-	<0.1997	<0.1997
Di-n-butyl phthalate	6.11E+03	(1)	2.38E+04	(5)	3.21E+03	(9)	3.21E+03	-	<0.4993	<0.4992
Di-n-octyl phthalate	-	-	-	-	-	-	-	-	<0.3995	<0.3993
Fluoranthene	2.29E+03	(1)	8.91E+03	(5)	5.61E+04	(9)	2.29E+03	-	<0.1997	<0.1997
Fluorene	2.29E+03	(1)	8.91E+03	(5)	9.36E+03	(9)	2.29E+03	-	<0.1997	<0.1997
Hexachlorobenzene	3.04E+00	(1)	1.20E+01	(4)	1.83E+00	(9)	1.83E+00	-	<0.1997	<0.1997
Hexachlorobutadiene	6.11E+01	(1)	2.38E+02	(5)	5.91E+00	(9)	5.91E+00	-	<0.1997	<0.1997
Hexachlorocyclopentadiene	3.67E+02	(1)	8.11E+02	(5)	2.43E+02	(9)	2.43E+02	-	<0.1997	<0.1997

Table 8
Old API Separator Soil Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Leachate DAF (461) (mg/kg) SoilGW NMED	Source	Min	Background Concentrations (13)	SWMU 14-24 (0-0.5')	SWMU 14-24 (1.5-2')
									1210860-001	1210860-002
									10/17/2012	10/17/2012
Hexachloroethane	4.28E+01	(1)	1.67E+02	(5)	3.77E+00	(9)	3.77E+00	-	<0.1997	<0.1997
Indeno(1,2,3-cd)pyrene	1.48E+00	(1)	2.34E+01	(4)	3.98E+02	(9)	1.48E+00	-	<0.1997	<0.1997
Isophorone	5.12E+03	(1)	4.75E+04	(5)	8.84E+01	(9)	8.84E+01	-	<0.4993	<0.4992
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	1.64E+00	(9)	1.64E+00	-	<0.1997	<0.1997
Nitrobenzene	5.35E+01	(1)	3.00E+02	(4)	2.88E-01	(9)	2.88E-01	-	<0.4993	<0.4992
N-Nitrosodi-n-propylamine	6.90E-01	(3)	2.50E+00	(7)	3.23E-03	(9)	3.23E-03	-	<0.1997	<0.1997
N-Nitrosodiphenylamine	9.93E+02	(1)	3.91E+03	(4)	2.61E+02	(9)	2.61E+02	-	<0.1997	<0.1997
Pentachlorophenol	8.94E+00	(1)	3.00E+01	(4)	5.90E+00	(9)	5.90E+00	-	<0.3995	<0.3993
Phenanthrene	1.83E+03	(1)	7.15E+03	(5)	1.32E+04	(9)	1.83E+03	-	<0.1997	<0.1997
Phenol	1.83E+04	(1)	6.88E+04	(5)	2.29E+03	(9)	2.29E+03	-	<0.1997	<0.1997
Pyrene	1.72E+03	(1)	6.68E+03	(5)	4.12E+04	(9)	1.72E+03	-	<0.1997	<0.1997
Pyridine	7.80E+01	(2)	1.00E+03	(6)	2.44E+00	(9)	2.44E+00	-	<0.4993	<0.4992
Total Petroleum Hydrocarbons - (EPA Method 8015B) mg/kg										
Diesel Range Organics (DRO)	1.00E+03	(11)	1.00E+03	(11)	1.00E+03	(11)	-	-	<10	<10
Gasoline Range Organics (GRO)	-	-	-	-	-	-	-	-	<5	<5
Motor Oil Range Organics (MRO)	3.00E+03	(12)	3.00E+03	(12)	3.00E+03	(12)	-	-	<50	<48

-- No screening level or analytical result available

NMED - Risk Assessment Guidance for Site Investigations and Remediation (June 14, 2012)

EPA - Regional Screening Levels (November 2012)

(1) NMED Residential Screening Level

(2) EPA Residential Screening Level

(3) EPA Residential - Screening Levels (November 2012) multiplied by 10 because the constituent is listed as carcinogenic

(4) NMED Industrial Occupational Screening Level

(5) NMED Construction Worker Screening Level

(6) EPA Industrial - Screening Levels (Nov. 2012)

(7) EPA Industrial - Screening Levels (Nov. 2012) multiplied by 10

(8) SoilGW NMED Dilution Attenuation Factor (DAF) = 461

(9) SoilGW Risk-based EPA DAF = 461

(10) SoilGW MCL-based EPA DAF = 461

(11) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "uknown oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(12) NMED Table 6-2 TPH Screening Guidelines for Potable Groundwater "waste oil" with DAF = 1.0 - see report Section 5 for use of screening levels

(13) Background concentrations to be determined.

Bold represents value above Residential Screening Level

yellow highlight represents value above Leachate (DAF) Screening Level

Bold with yellow - value exceeds Residential Screening Level and

Table 9
Aeration Basin Groundwater Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	NMED WQCC Standards (mg/L)	NMED Tap Water (mg/L)	Tap Water key	EPA Screening Levels Tap Water (mg/L)	Tap Water key	MCL (mg/L)	Screening Levels	Source	SWMU 1-2 GW	SWMU 1-3 GW	SWMU 1-4 GW	SWMU 1-5 GW	SWMU 1-6 GW	SWMU 1-7 GW	SWMU 1-8 GW	SWMU 1-24 GW	SWMU 1-37 GW
									1210279-006	1210332-005	1210372-012 / 026	1210372-013	1210372-027	1210372-028	1210372-014	1210660-001	1210692-026
Sample Date	(3)	(4)		(1)		(2)			10/2/2012	10/3/2012	10/4 & 10/5/2012	10/5/2012	10/4/2012	10/4/2012	10/5/2012	10/10/2012	10/11/2012
Metals																	
Antimony		1.46E-02	n	6.00E-03	n	**6.00E-03**	6.00E-03	(2)	<0.0125	<0.0025	<0.0025	-	<0.005	<0.005	<0.005	<0.005	<0.0025
Arsenic	1.00E-01	4.48E-04	c	4.50E-05	c	**1.00E-02**	1.00E-02	(2)	**0.063**	**0.015**	**0.016**	-	**0.054**	**0.046**	**0.032**	**0.052**	0.0082
Barium	**1.00E+00**	7.30E+00	n	2.90E+00	n	2.00E+00	1.00E+00	(3)	**56**	0.54	**1.2**	-	**3.4**	**3.2**	**4.7**	**17**	0.24
Beryllium	-	7.30E-02	n	1.60E-02	n	**4.00E-03**	4.00E-03	(2)	**0.21**	**0.0066**	<0.002	-	**0.041**	**0.051**	**0.0065**	**0.032**	<0.002
Cadmium	**1.00E-02**	1.83E-02	n	-	-	-	1.00E-02	(3)	<0.05	<0.002	<0.002	-	<0.02	<0.02	<0.004	<0.004	<0.002
Chromium III	**5.00E-02**	5.48E+01	n	1.60E+00	n	-	5.00E-02	(3)	**0.31**	0.015	<0.006	-	**0.16**	**0.17**	**0.058**	**0.14**	<0.006
Cobalt	**5.00E-02**	-	-	4.70E-03	n	-	5.00E-02	(3)	**0.53**	0.043	0.011	-	**0.27**	**0.16**	**0.053**	**0.11**	0.026
Cyanide, Total	**2.00E-01**	2.19E-02	n	1.40E-03	n	2.00E-01	2.00E-01	(3)	0.037	0.032	0.021	-	0.028	0.052	0.018	0.059	0.031
Iron, Total	**1.00E+00**	2.56E+01	n	1.10E+01	n	-	1.00E+00	(3)	**140**	**20**	0.32	-	**94**	**130**	**39**	**160**	**2.5**
Lead	5.00E-02	-	-	-	L	**1.50E-02**	1.50E-02	(2)	**1.7**	**0.057**	<0.0025	-	**0.29**	**0.34**	**0.078**	**0.49**	0.0041
Manganese	**2.00E-01**	8.76E-01	n	-	-	-	2.00E-01	(3)	**95**	**2.1**	**0.99**	-	**39**	**33**	**7.9**	**43**	**1.1**
Mercury	**2.00E-03**	6.26E-04	n	6.30E-04	n	2.00E-03	2.00E-03	(3)	0.00027	<0.0002	<0.0002	-	0.00021	0.00034	<0.0002	0.00022	<0.0002
Nickel	**2.00E-01**	7.30E-01	n	3.00E+00	n	-	2.00E-01	(3)	**0.95**	**0.35**	0.13	-	**0.55**	**0.46**	0.11	**0.21**	**0.26**
Selenium	**5.00E-02**	1.83E-01	n	7.80E-02	n	5.00E-02	5.00E-02	(3)	**0.059**	0.0097	0.0073	-	0.024	0.022	0.0075	0.023	0.0072
Silver	**5.00E-02**	1.83E-01	n	7.10E-02	n	-	5.00E-02	(3)	<0.125	<0.005	<0.005	-	<0.05	<0.05	<0.01	<0.01	<0.005
Vanadium	-	**1.83E-01**	n	7.80E-02	n	-	1.83E-01	(4)	<1.25	<0.05	<0.05	-	<0.5	<0.5	<0.1	**0.2**	<0.05
Zinc	**1.00E+01**	1.10E+01	n	4.70E+00	n	-	1.00E+01	(3)	1.1	0.068	0.047	-	0.88	0.42	0.11	0.27	0.023
Chloride	-	-	-	-	-	-	-		1600	1600	1900	-	1200	1800	660	1500	1100
Fluoride	**1.60E+00**	1.46E+00	n	9.30E-01	n	-	1.60E+00	(3)	**3**	0.89	**4.8**	-	**8.8**	1.1	0.78	**13**	1.4
Sulfate	-	-	-	-	-	-	-		550	810	180	-	1800	2200	52	110	500
Volatile Organic Compounds - (EPA Method 8260B)																	
1,1,1,2-Tetrachloroethane	-	**5.24E-03**	c	5.00E-04	c	-	5.24E-03	(4)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
1,1,1-Trichloroethane	**6.00E-02**	9.13E+00	n	7.50E+01	n	2.00E-01	6.00E-02	(3)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
1,1,2,2-Tetrachloroethane	**2.00E-02**	6.71E-04	c	6.60E-04	c	-	2.00E-02	(3)	<0.004	<0.002	<0.002	<0.004	<0.002	<0.004	<0.002	<0.01	<0.002
1,1,2-Trichloroethane	1.00E-01	4.16E-04	n	2.40E-03	c**	**5.00E-03**	5.00E-03	(2)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
1,1-Dichloroethane	**2.50E-02**	2.42E-02	c	2.40E-02	c	-	2.50E-02	(3)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
1,1-Dichloroethene	**5.00E-03**	3.40E-01	n	2.60E-01	n	7.00E-03	5.00E-03	(3)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
1,1-Dichloropropene	-	-	-	-	-	-	-		<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
1,2,3-Trichlorobenzene	-	-	-	**5.20E-02**	n	-	5.20E-02	(1)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
1,2,3-Trichloropropane	-	**7.18E-06**	c	6.50E-06	c	-	7.18E-06	(4)	<0.004	<0.002	<0.002	<0.004	<0.002	<0.004	<0.002	<0.01	<0.002
1,2,4-Trichlorobenzene	-	4.12E-03	n	9.90E-03	c**	**7.00E-02**	7.00E-02	(2)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
1,2,4-Trimethylbenzene	-	-	-	**1.50E-02**	n	-	1.50E-02	(1)	0.01	<0.001	**0.032**	<0.002	<0.001	<0.002	0.0069	0.015	<0.001
1,2-Dibromo-3-chloropropane	-	3.16E-06	c	3.20E-06	c	**2.00E-04**	2.00E-04	(2)	<0.004	<0.002	<0.002	<0.004	<0.002	<0.004	<0.002	<0.01	<0.002
1,2-Dibromoethane (EDB)	1.00E-04	6.53E-05	c	6.50E-05	c	**5.00E-05**	5.00E-05	(2)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
1,2-Dichlorobenzene	-	3.70E-01	n	2.80E-01	n	**6.00E-01**	6.00E-01	(2)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
1,2-Dichloroethane (EDC)	1.00E-02	1.49E-03	c	1.50E-03	c*	**5.00E-03**	5.00E-03	(2)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
1,2-Dichloropropane	-	3.86E-03	c	3.80E-03	c*	**5.00E-03**	5.00E-03	(2)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
1,3,5-Trimethylbenzene	-	-	-	**8.70E-02**	n	-	8.70E-02	(1)	<0.002	<0.001	0.008	<0.002	<0.001	<0.002	0.0015	<0.005	<0.001
1,3-Dichlorobenzene	-	-	-	-	-	-	-		<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
1,3-Dichloropropane	-	-	-	**2.90E-01**	n	-	2.90E-01	(1)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
1,4-Dichlorobenzene	-	4.27E-03	c	4.20E-03	c	**7.50E-02**	7.50E-02	(2)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
1-Methylnaphthalene	-	-	-	**9.70E-03**	c	-	9.70E-03	(5)	<0.008	<0.004	**0.011**	<0.008	<0.004	<0.008	**0.0098**	<0.02	<0.004
2,2-Dichloropropane	-	-	-	-	-	-	-		<0.004	<0.002	<0.002	<0.004	<0.002	<0.004	<0.002	<0.01	<0.002
2-Butanone	-	**7.06E+00**	n	4.90E+00	n	-	7.06E+00	(4)	<0.02	<0.01	0.047	0.02	0.026	<0.02	<0.01	<0.05	<0.01
2-Chlorotoluene	-	**7.30E-01**	n	1.80E-01	n	-	7.30E-01	(4)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
2-Hexanone	-	**8.76E-01**	n	3.40E-02	n	-	8.76E-01	(4)	<0.02	<0.01	0.016	<0.02	<0.01	<0.02	<0.01	<0.05	<0.01
2-Methylnaphthalene	-	-	-	**2.70E-02**	n	-	2.70E-02	(1)	<0.008	<0.004	0.019	<0.008	<0.004	<0.008	0.01	<0.02	<0.004
4-Chlorotoluene	-	-	-	**1.90E-01**	n	-	1.90E-01	(1)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
4-Isopropyltoluene	-	-	-	-	-	-	-		<0.002	<0.001	0.0015	<0.002	0.0012	<0.002	<0.001	<0.005	0.012
4-Methyl-2-pentanone	-	-	-	**1.00E+00**	n	-	1.00E+00	(1)	<0.02	<0.01	0.015	<0.02	<0.01	<0.02	<0.01	<0.05	<0.01
Acetone	-	**2.18E+01**	n	1.20E+01	n	-	2.18E+01	(4)	0.027	0.014	0.13	0.049	0.27	<0.02	0.058	0.052	0.039
Benzene	1.00E-02	4.13E-03	c	3.90E-03	c*	**5.00E-03**	5.00E-03	(2)	**0.017**	0.0034	**0.024**	0.0045	<0.001	<0.002	0.0023	**0.02**	0.0011
Bromobenzene	-	-	-	**5.40E-02**	n	-	5.40E-02	(1)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
Bromodichloromethane	-	1.17E-03	c	1.20E-02	c	**8.00E-02**	8.00E-02	(2)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
Bromoform	-	8.51E-02	c	7.90E-02	c*	**8.00E-02**	8.00E-02	(2)	<0.002	<0.001	<0.001	0.0027	<0.001	<0.002	<0.001	<0.005	<0.001
Bromomethane	-	8.66E-03	n	7.00E-03	n	-	8.66E-03	(4)	<0.006	<0.003	<0.003	<0.006	0.003	<0.006	<0.003	<0.015	<0.003
Carbon disulfide	-	**1.04E+00**	n	7.20E-01	n	-	1.04E+00	(4)	<0.02	<0.01	<0.01	<0.02	0.03	<0.02	<0.01	<0.05	<0.01
Carbon Tetrachloride	1.00E-02	4.40E-03	c	3.90E-03	c	**5.00E-03**	5.00E-03	(2)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
Chlorobenzene	-	9.13E-02	n	7.20E-02	n	**1.00E-01**	1.00E-01	(2)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
Chloroethane	-	**2.09E+01**	n	2.10E+01	n	-	2.09E+01	(4)	<0.004	<0.002	<0.002	<0.004	<0.002	<0.004	<0.002	<0.01	<0.002

Table 9
Aeration Basin Groundwater Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	NMED WQCC Standards (mg/L)	NMED Tap Water (mg/L)	Tap Water key	EPA Screening Levels Tap Water (mg/L)	Tap Water key	MCL (mg/L)	Screening Levels	Source	SWMU 1-2 GW	SWMU 1-3 GW	SWMU 1-4 GW	SWMU 1-5 GW	SWMU 1-6 GW	SWMU 1-7 GW	SWMU 1-8 GW	SWMU 1-24 GW	SWMU 1-37 GW
									1210279-006	1210332-005	1210372-012 / 026	1210372-013	1210372-027	1210372-028	1210372-014	1210660-001	1210692-026
Sample Date	(3)	(4)		(1)		(2)			10/2/2012	10/3/2012	10/4 & 10/5/2012	10/5/2012	10/4/2012	10/4/2012	10/5/2012	10/10/2012	10/11/2012
Chloroform	1.00E-01	1.93E-03	c	1.90E-03	c	**8.00E-02**	8.00E-02	(2)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
Chloromethane	-	**1.88E-01**	n	1.90E-01	n	-	1.88E-01	(4)	<0.006	<0.003	<0.003	<0.006	0.0035	<0.006	<0.003	<0.015	<0.003
cis-1,2-DCE	-	7.30E-02	n	2.80E-01	n	**7.00E-02**	7.00E-02	(2)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
cis-1,3-Dichloropropene	-	**4.33E-03**	c	-	-	-	4.33E-03	(4)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
Dibromochloromethane	-	1.47E-03	c	1.50E-03	c	**8.00E-02**	8.00E-02	(2)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
Dibromomethane	-	**8.16E-03**	n	7.90E-03	n	-	8.16E-03	(4)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
Dichlorodifluoromethane	-	**2.03E-01**	n	1.90E-01	n	-	2.03E-01	(4)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
Ethylbenzene	7.50E-01	1.48E-02	c	1.30E-02	c	**7.00E-01**	7.00E-01	(2)	0.0047	<0.001	0.016	<0.002	<0.001	<0.002	0.0028	0.0089	<0.001
Hexachlorobutadiene	-	**8.62E-03**	c	2.60E-03	c*	-	8.62E-03	(4)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
Isopropylbenzene (Cumene)	-	**6.79E-01**	n	3.90E-01	n	-	6.79E-01	(4)	<0.002	<0.001	0.0015	<0.002	<0.001	<0.002	0.0013	<0.005	<0.001
Methyl tert-butyl ether (MTBE)	-	**1.25E-01**	c	1.20E-01	c	-	1.25E-01	(4)	0.043	0.04	0.059	<0.002	<0.001	0.014	**0.31**	0.065	**0.13**
Methylene Chloride	1.00E-01	1.86E-01	n	9.90E-02	c**	**5.00E-03**	5.00E-03	(2)	<0.006	<0.003	<0.003	<0.006	<0.003	<0.006	<0.003	<0.015	<0.003
Naphthalene	-	**1.43E-03**	c	1.40E-03	c*	-	1.43E-03	(4)	<0.004	<0.002	**0.032**	<0.004	<0.002	<0.004	**0.0023**	**0.022**	<0.002
n-Butylbenzene	-	-	-	**7.80E-01**	n	-	7.80E-01	(1)	<0.006	<0.003	<0.003	<0.006	<0.003	<0.006	<0.003	<0.015	<0.003
n-Propylbenzene	-	-	-	**5.30E-01**	n	-	5.30E-01	(1)	0.0027	<0.001	0.0027	<0.002	<0.001	<0.002	0.0017	<0.005	<0.001
sec-Butylbenzene	-	-	-	-	-	-	-		<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	0.0014	<0.005	<0.001
Styrene	-	1.62E+00	n	1.10E+00	n	**1.00E-01**	1.00E-01	(2)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
tert-Butylbenzene	-	-	-	-	-	-	-		<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
Tetrachloroethene (PCE)	2.00E-02	1.08E-03	c	9.70E-02	c**	**5.00E-03**	5.00E-03	(2)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
Toluene	**7.50E-01**	2.28E+00	n	8.60E-01	n	1.00E+00	7.50E-01	(3)	0.004	<0.001	0.016	0.0072	<0.001	<0.002	0.0023	0.018	<0.001
trans-1,2-DCE	-	1.07E-01	n	8.60E-02	n	**1.00E-01**	1.00E-01	(2)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
trans-1,3-Dichloropropene	-	-	-	-	-	-	-		<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
Trichloroethene (TCE)	1.00E-01	3.40E-03	n	4.40E-03	c**	**5.00E-03**	5.00E-03	(2)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
Trichlorofluoromethane	-	**1.29E+00**	n	1.10E+00	n	-	1.29E+00	(4)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
Vinyl chloride	**1.00E-03**	1.62E-04	c	1.50E-04	c	2.00E-03	1.00E-03	(3)	<0.002	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.005	<0.001
Xylenes, Total	**6.20E-01**	2.03E-01	n	1.90E-01	n	1.00E+01	6.20E-01	(3)	0.02	<0.0015	0.1	<0.003	<0.0015	<0.003	0.0059	0.038	<0.0015
Semi Volatile Organics - (EPA Method 8270C)																	
1,2,4-Trichlorobenzene	-	4.12E-03	n	9.90E-03	c**	**7.00E-02**	7.00E-02	(2)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
1,2-Dichlorobenzene	-	3.70E-01	n	2.80E-01	n	**6.00E-01**	6.00E-01	(2)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
1,3-Dichlorobenzene	-	-	-	-	-	-	-		<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
1,4-Dichlorobenzene	-	4.27E-03	c	4.20E-03	c	**7.50E-02**	7.50E-02	(2)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
1-Methylnaphthalene	-	-	-	**9.70E-03**	c	-	9.70E-03	(5)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	**0.01**	<0.01
2,4,5-Trichlorophenol	-	**3.65E+00**	n	8.90E-01	n	-	3.65E+00	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
2,4,6-Trichlorophenol	-	**3.65E-02**	n	3.50E-02	c**	-	3.65E-02	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
2,4-Dichlorophenol	-	**1.10E-01**	n	3.50E-02	n	-	1.10E-01	(4)	<0.02	<0.02	<0.02	<0.02	<0.04	<0.02	<0.02	<0.02	<0.02
2,4-Dimethylphenol	-	**7.30E-01**	n	2.70E-01	n	-	7.30E-01	(4)	0.026	<0.01	**0.85**	<0.01	<0.02	<0.01	<0.01	0.23	<0.01
2,4-Dinitrophenol	-	**7.30E-02**	n	3.00E-02	n	-	7.30E-02	(4)	<0.02	<0.02	<0.02	<0.02	<0.04	<0.02	<0.02	<0.02	<0.02
2,4-Dinitrotoluene	-	**2.17E-03**	c	2.00E-03	c	-	2.17E-03	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
2,6-Dinitrotoluene	-	**3.65E-02**	n	1.50E-02	n	-	3.65E-02	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
2-Chloronaphthalene	-	**1.21E-03**	n	5.50E-01	n	-	1.21E-03	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
2-Chlorophenol	-	**1.83E-01**	n	7.10E-02	n	-	1.83E-01	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
2-Methylnaphthalene	-	-	-	**2.70E-02**	n	-	2.70E-02	(1)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
2-Methylphenol	-	-	-	**7.20E-01**	n	-	7.20E-01	(1)	<0.01	<0.01	0.018	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
2-Nitroaniline	-	-	-	**1.50E+00**	n	-	1.50E+00	(1)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
2-Nitrophenol	-	-	-	-	-	-	-		<0.01	<0.01	<0.01	<0.01	0.24	<0.01	<0.01	<0.01	<0.01
3,3´-Dichlorobenzidine	-	**1.49E-03**	c	1.10E-03	c	-	1.49E-03	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
3+4-Methylphenol	-	-	-	-	-	-	-		<0.01	<0.01	0.018	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
3-Nitroaniline	-	-	-	-	-	-	-		<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
4,6-Dinitro-2-methylphenol	-	-	-	**1.20E-03**	n	-	1.20E-03	(1)	<0.02	<0.02	<0.02	<0.02	<0.04	<0.02	<0.02	<0.02	<0.02
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-		<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
4-Chloro-3-methylphenol	-	-	-	**1.10E+00**	n	-	1.10E+00	(1)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
4-Chloroaniline	-	-	-	**3.20E-03**	c	-	3.20E-03	(5)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-		<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
4-Nitroaniline	-	-	-	**3.30E-02**	c*	-	3.30E-02	(5)	<0.01	<0.02	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
4-Nitrophenol	-	-	-	-	-	-	-		<0.01	<0.01	<0.01	<0.01	0.026	<0.01	<0.01	<0.01	<0.01
Acenaphthene	-	**2.19E+00**	n	4.00E-01	n	-	2.19E+00	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Acenaphthylene	-	-	-	-	-	-	-		<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Aniline	-	-	-	**1.20E-01**	c**	-	1.20E-01	(5)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Anthracene	-	**1.10E+01**	n	1.30E+00	n	-	1.10E+01	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Azobenzene	-	-	-	**1.00E-03**	c	-	1.00E-03	(5)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Benz(a)anthracene	-	**2.95E-04**	c	2.90E-04	c	-	2.95E-04	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01

Table 9
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Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	NMED WQCC Standards (mg/L)	NMED Tap Water (mg/L)	Tap Water key	EPA Screening Levels Tap Water (mg/L)	Tap Water key	MCL (mg/L)	Screening Levels	Source	SWMU 1-2 GW	SWMU 1-3 GW	SWMU 1-4 GW	SWMU 1-5 GW	SWMU 1-6 GW	SWMU 1-7 GW	SWMU 1-8 GW	SWMU 1-24 GW	SWMU 1-37 GW
									1210279-006	1210332-005	1210372-012 / 026	1210372-013	1210372-027	1210372-028	1210372-014	1210660-001	1210692-026
Sample Date	(3)	(4)		(1)		(2)			10/2/2012	10/3/2012	10/4 & 10/5/2012	10/5/2012	10/4/2012	10/4/2012	10/5/2012	10/10/2012	10/11/2012
Benzo(a)pyrene	7.00E-04	2.95E-05	c	2.90E-05	c	**2.00E-04**	2.00E-04	(2)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Benzo(b)fluoranthene	-	**2.95E-04**	c	2.90E-04	c	-	2.95E-04	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Benzo(g,h,i)perylene	-	-	-	-	-	-	-		<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Benzo(k)fluoranthene	-	**2.95E-03**	c	2.90E-03	c	-	2.95E-03	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Benzoic acid	-	-	-	**5.80E+01**	n	-	5.80E+01	(1)	<0.02	<0.02	<0.02	<0.02	<0.04	<0.02	<0.02	<0.02	<0.02
Benzyl alcohol	-	-	-	**1.50E+00**	n	-	1.50E+00	(1)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Bis(2-chloroethoxy)methane	-	-	-	**4.60E-02**	n	-	4.60E-02	(1)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Bis(2-chloroethyl)ether	-	**1.19E-04**	c	1.20E-04	c	-	1.19E-04	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Bis(2-chloroisopropyl)ether	-	**9.60E-03**	c	3.10E-03	c	-	9.60E-03	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Bis(2-ethylhexyl)phthalate	-	4.80E-02	c	4.80E-02	c*	**6.00E-03**	6.00E-03	(2)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Butyl benzyl phthalate	-	-	-	**1.40E-01**	c*	-	1.40E-01	(5)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Carbazole	-	-	-	-	-	-	-		<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Chrysene	-	**2.95E-02**	c	2.90E-02	c	-	2.95E-02	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Dibenz(a,h)anthracene	-	**2.95E-05**	c	2.90E-05	c	-	2.95E-05	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Dibenzofuran	-	-	-	**2.20E-01**	n	-	2.20E-01	(1)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Diethyl phthalate	-	**2.92E+01**	n	1.10E+01	n	-	2.92E+01	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Dimethyl phthalate	-	**3.65E+02**	n	-	-	-	3.65E+02	(4)	<0.01	<0.01	0.01	0.013	<0.02	<0.01	<0.01	<0.01	<0.01
Di-n-butyl phthalate	-	**3.65E+00**	n	6.70E-01	n	-	3.65E+00	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Di-n-octyl phthalate	-	-	-	-	-	-	-		<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.02
Fluoranthene	-	**1.46E+00**	n	6.30E-01	n	-	1.46E+00	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Fluorene	-	**1.46E+00**	n	2.20E-01	n	-	1.46E+00	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Hexachlorobenzene	-	4.20E-04	c	4.20E-04	c	**1.00E-03**	1.00E-03	(2)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Hexachlorobutadiene	-	**8.62E-03**	c	2.60E-03	c*	-	8.62E-03	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Hexachlorocyclopentadiene	-	2.19E-01	n	2.20E-02	n	**5.00E-02**	5.00E-02	(2)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Hexachloroethane	-	**1.68E-02**	c	7.90E-03	c**	-	1.68E-02	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene	-	**2.95E-04**	c	2.90E-04	c	-	2.95E-04	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Isophorone	-	**7.07E-01**	c	6.70E-01	c*	-	7.07E-01	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Naphthalene	-	**1.43E-03**	c	1.40E-03	c*	-	1.43E-03	(4)	<0.01	<0.01	**0.016**	<0.01	<0.02	<0.01	<0.01	**0.011**	<0.01
Nitrobenzene	-	**1.22E-03**	c	1.20E-03	c*	-	1.22E-03	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
N-Nitrosodi-n-propylamine	-	-	-	**9.30E-05**	c	-	9.30E-05	(5)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
N-Nitrosodiphenylamine	-	**1.37E-01**	c	1.00E-01	c	-	1.37E-01	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Pentachlorophenol	-	1.68E-03	c	3.50E-04	c	**1.00E-03**	1.00E-03	(2)	<0.02	<0.02	<0.02	<0.02	<0.04	<0.02	<0.02	<0.02	<0.02
Phenanthrene	-	**1.10E+00**	n	-	-	-	1.10E+00	(3)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Phenol	-	**1.10E+01**	n	4.50E+00	n	-	1.10E+01	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Pyrene	-	**1.10E+00**	n	8.70E-02	n	-	1.10E+00	(4)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Pyridine	-	-	-	**1.50E-02**	n	-	1.50E-02	(1)	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01
Diesel Range Organics (DRO)	-	2.00E-01	-	-	-	-	-	(6)	<2	<1	**4.4**	<1	**1.3**	<1	<1	**1.9**	**1**
Gasoline Range Organics (GRO)	-	-	-	-	-	-	-		0.71	0.65	0.73	0.26	0.13	0.22	1	1.9	0.56
Motor Oil Range Organics (MRO)	-	-	-	-	-	-	-		<10	<5	<5	<5	<5	<5	<5	<5	<5

- No screening level or analytical result available
450 - bolded value exceeds screening level
(1) EPA - Regional Screening Levels (November 2012) - Tap Water
(2) EPA - Regional Screening Levels (November 2012) - MCL
(3) NMED WQCC standards - Title 20 Chapter 6, Part 2, - 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less
(4) NMED Tap Water Screening Levels (June 2012)
(5) EPA - Regional Screening Levels (November 2012) - Tap Water; carcinogenic screening levels multiplied by 10
(6) NMED TPH Screening Guidelines 2012 - Table 6-2 "unknown oil"

Table 10
Old API Separator Groundwater Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	NMED WQCC Standards (mg/L)	NMED Tap Water (mg/L)	Tap Water key	EPA Screening Levels Tap Water (mg/L)	Tap Water key	MCL (mg/L)	Screening Levels	Source	SWMU 14-2 GW	SWMU 14-3 GW	SWMU 14-OAPIS-1GW
				1.00E+01					1207940-029	1207900-007	1210860-004
Sample Date	(3)	(4)		(1)		(2)			7/19/2012	7/18/2012	10/16/2012
Total Metals											
Antimony	-	1.46E-02	n	6.00E-03	n	**6.00E-03**	6.00E-03	(2)	0.00085	<0.0025	<0.0025
Arsenic	1.00E-01	4.48E-04	c	4.50E-05	c	**1.00E-02**	1.00E-02	(2)	**0.012**	**0.024**	0.0085
Barium	**1.00E+00**	7.30E+00	n	2.90E+00	n	2.00E+00	1.00E+00	(3)	0.54	**2.8**	0.68
Beryllium	-	7.30E-02	n	1.60E-02	n	**4.00E-03**	4.00E-03	(2)	0.0021	**0.042**	<0.002
Cadmium	**1.00E-02**	1.83E-02	n	-	-	-	1.00E-02	(3)	<0.002	<0.02	<0.002
Chromium	**5.00E-02**	4.31E-04	n	1.60E+00	n	-	5.00E-02	(3)	**0.075**	**0.38**	**0.012**
Cobalt	**5.00E-02**	-	-	4.70E-03	n	-	5.00E-02	(3)	0.038	**0.12**	0.044
Cyanide, Total	**2.00E-01**	2.19E-02	n	1.40E-03	n	2.00E-01	2.00E-01	(3)	**0.216**		0.09
Iron, Total	**1.00E+00**	2.56E+01	n	1.10E+01	n	-	1.00E+00	(3)	**31**	**120**	**5.6**
Lead	5.00E-02	-	-	-	L	**1.50E-02**	1.50E-02	(2)	**0.044**	**0.19**	0.01
Manganese	**2.00E-01**	8.76E-01	n	-	-	-	2.00E-01	(3)	**1.3**	**45**	**2**
Mercury	**2.00E-03**	6.26E-04	n	6.30E-04	n	2.00E-03	2.00E-03	(3)	0.000033	0.00011	<0.0002
Nickel	**2.00E-01**	7.30E-01	n	3.00E+00	n	-	2.00E-01	(3)	0.2	0.18	0.13
Selenium	**5.00E-02**	1.83E-01	n	7.80E-02	n	5.00E-02	5.00E-02	(3)	0.023	0.0096	0.016
Silver	**5.00E-02**	1.83E-01	n	7.10E-02	n	-	5.00E-02	(3)	<0.005	<0.05	<0.005
Vanadium	-	**1.83E-01**	n	7.80E-02	n	-	1.83E-01	(4)	0.029	**0.52**	<0.05
Zinc	**1.00E+01**	1.10E+01	n	4.70E+00	n	-	1.00E+01	(3)	0.32	1.1	0.099
Chloride	-	-	-	-	-	-	-		-	-	<0.5
Fluoride	**1.60E+00**	1.46E+00	n	9.30E-01	n	-	1.60E+00	(3)	-	-	<0.1
Sulfate	-	-	-	-	-	-	-		-	-	<0.5
Dissolved Metals											
Antimony (Dissolved)	-	1.46E-02	n	6.00E-03	n	**6.00E-03**	6.00E-03	(2)	<0.005	-	-
Arsenic (Dissolved)	1.00E-01	4.48E-04	c	4.50E-05	c	**1.00E-02**	1.00E-02	(2)	**0.011**	-	-
Barium (Dissolved)	**1.00E+00**	7.30E+00	n	2.90E+00	n	2.00E+00	1.00E+00	(3)	0.18	-	-
Beryllium (Dissolved)	-	7.30E-02	n	1.60E-02	n	**4.00E-03**	4.00E-03	(2)	<0.002	-	-
Cadmium (Dissolved)	**1.00E-02**	1.83E-02	n	-	-	-	1.00E-02	(3)	<0.002	-	-
Chromium (Dissolved)	**5.00E-02**	5.48E+01	n	1.60E+00	n	-	5.00E-02	(3)	0.0077	-	-
Cobalt (Dissolved)	**5.00E-02**	-	-	4.70E-03	n	-	5.00E-02	(3)	0.029	-	-
Iron, Total (Dissolved)	**1.00E+00**	2.56E+01	n	1.40E-03	n	-	1.00E+00	(3)	0.14	-	-
Lead (Dissolved)	5.00E-02	-	-	1.10E+01	L	**1.50E-02**	1.50E-02	(2)	<0.005	-	-
Manganese (Dissolved)	**2.00E-01**	8.76E-01	n	-	-	-	2.00E-01	(3)	**0.54**	-	-
Nickel (Dissolved)	**2.00E-01**	7.30E-01	n	3.00E+00	n	-	2.00E-01	(3)	0.18	-	-
Selenium (Dissolved)	**5.00E-02**	1.83E-01	n	7.80E-02	n	5.00E-02	5.00E-02	(3)	0.023	-	-
Silver (Dissolved)	**5.00E-02**	1.83E-01	n	7.10E-02	n	-	5.00E-02	(3)	<0.005	-	-
Vanadium (Dissolved)	-	**1.83E-01**	n	7.80E-02	n	-	1.83E-01	(4)	<0.05	-	-
Zinc (Dissolved)	**1.00E+01**	1.10E+01	n	4.70E+00	n	-	1.00E+01	(3)	0.13	-	-
Volatile Organic Compounds - (EPA Method 8260B)											
1,1,1,2-Tetrachloroethane	-	**5.24E-03**	c	5.00E-04	c	-	5.24E-03	(4)	<0.01	<0.005	<0.01
1,1,1-Trichloroethane	**6.00E-02**	9.13E+00	n	7.50E+01	n	2.00E-01	6.00E-02	(3)	<0.01	<0.005	<0.01
1,1,2,2-Tetrachloroethane	**2.00E-02**	6.71E-04	c	6.60E-04	c	-	2.00E-02	(3)	<0.02	<0.01	<0.02
1,1,2-Trichloroethane	1.00E-01	4.16E-04	n	2.40E-03	c**	**5.00E-03**	5.00E-03	(2)	<0.01	<0.005	<0.01
1,1-Dichloroethane	**2.50E-02**	2.42E-02	c	2.40E-02	c	-	2.50E-02	(3)	<0.01	0.0044	<0.01
1,1-Dichloroethene	**5.00E-03**	3.40E-01	n	2.60E-01	n	7.00E-03	5.00E-03	(3)	<0.01	0.0019	<0.01
1,1-Dichloropropene	-	-	-	-	-	-	-		<0.01	<0.005	<0.01
1,2,3-Trichlorobenzene	-	-	-	**5.20E-02**	n	-	5.20E-02	(1)	<0.01	<0.005	<0.01
1,2,3-Trichloropropane	-	**7.18E-06**	c	6.50E-06	c	-	7.18E-06	(4)	<0.02	<0.01	<0.02
1,2,4-Trichlorobenzene	-	4.12E-03	n	9.90E-03	c**	**7.00E-02**	7.00E-02	(2)	<0.01	<0.005	<0.01
1,2,4-Trimethylbenzene	-	-	-	**1.50E-02**	n	-	1.50E-02	(1)	**0.085**	**0.082**	<0.01
1,2-Dibromo-3-chloropropane	-	3.16E-06	c	3.20E-06	c	**2.00E-04**	2.00E-04	(2)	<0.02	<0.01	<0.02

Table 10
Old API Separator Groundwater Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	NMED WQCC Standards (mg/L)	NMED Tap Water (mg/L)	Tap Water key	EPA Screening Levels Tap Water (mg/L)	Tap Water key	MCL (mg/L)	Screening Levels	Source	SWMU 14-2 GW	SWMU 14-3 GW	SWMU 14-OAPIS-1GW
				1.00E+01					1207940-029	1207900-007	1210860-004
Sample Date	(3)	(4)		(1)		(2)			7/19/2012	7/18/2012	10/16/2012
1,2-Dibromoethane (EDB)	1.00E-04	6.53E-05	c	6.50E-05	c	**5.00E-05**	5.00E-05	(2)	<0.01	<0.005	<0.01
1,2-Dichlorobenzene	-	3.70E-01	n	2.80E-01	n	**6.00E-01**	6.00E-01	(2)	<0.01	<0.005	<0.01
1,2-Dichloroethane (EDC)	1.00E-02	1.49E-03	c	1.50E-03	c*	**5.00E-03**	5.00E-03	(2)	<0.01	<0.005	<0.01
1,2-Dichloropropane	-	3.86E-03	c	3.80E-03	c*	**5.00E-03**	5.00E-03	(2)	<0.01	<0.005	<0.01
1,3,5-Trimethylbenzene	-	-	-	**8.70E-02**	n	-	8.70E-02	(1)	0.0079	0.0057	<0.01
1,3-Dichlorobenzene	-	-	-	-	-	-	-		<0.01	<0.005	<0.01
1,3-Dichloropropane	-	-	-	**2.90E-01**	n	-	2.90E-01	(1)	<0.01	<0.005	<0.01
1,4-Dichlorobenzene	-	4.27E-03	c	4.20E-03	c	**7.50E-02**	7.50E-02	(2)	<0.01	<0.005	<0.01
1-Methylnaphthalene	-	-	-	**9.70E-03**	c	-	9.70E-03	(5)	**0.061**	**0.17**	<0.04
2,2-Dichloropropane	-	-	-	-	-	-	-		<0.02	<0.01	<0.02
2-Butanone	-	**7.06E+00**	n	4.90E+00	n	-	7.06E+00	(4)	0.066	<0.05	<0.1
2-Chlorotoluene	-	**7.30E-01**	n	1.80E-01	n	-	7.30E-01	(4)	<0.01	<0.005	<0.01
2-Hexanone	-	**8.76E-01**	n	3.40E-02	n	-	8.76E-01	(4)	<0.1	<0.05	<0.1
2-Methylnaphthalene	-	-	-	**2.70E-02**	n	-	2.70E-02	(1)	**0.039**	**0.11**	<0.04
4-Chlorotoluene	-	-	-	**1.90E-01**	n	-	1.90E-01	(1)	<0.01	<0.005	<0.01
4-Isopropyltoluene	-	-	-	-	-	-	-		<0.01	0.0033	<0.01
4-Methyl-2-pentanone	-	-	-	**1.00E+00**	n	-	1.00E+00	(1)	<0.1	<0.05	<0.1
Acetone	-	**2.18E+01**	n	1.20E+01	n	-	2.18E+01	(4)	0.42	0.0083	<0.1
Benzene	1.00E-02	4.13E-03	c	3.90E-03	c*	**5.00E-03**	5.00E-03	(2)	**0.067**	**0.097**	**0.013**
Bromobenzene	-	-	-	**5.40E-02**	n	-	5.40E-02	(1)	<0.01	<0.005	<0.01
Bromodichloromethane	-	1.17E-03	c	1.20E-02	c	**8.00E-02**	8.00E-02	(2)	<0.01	<0.005	<0.01
Bromoform	-	8.51E-02	c	7.90E-02	c*	**8.00E-02**	8.00E-02	(2)	<0.01	<0.005	<0.01
Bromomethane	-	**8.66E-03**	n	7.00E-03	n	-	8.66E-03	(4)	<0.03	<0.015	<0.03
Carbon disulfide	-	**1.04E+00**	n	7.20E-01	n	-	1.04E+00	(4)	<0.1	<0.05	<0.1
Carbon Tetrachloride	1.00E-02	4.40E-03	c	3.90E-03	c	**5.00E-03**	5.00E-03	(2)	<0.01	<0.005	<0.01
Chlorobenzene	-	9.13E-02	n	7.20E-02	n	**1.00E-01**	1.00E-01	(2)	<0.01	<0.005	<0.01
Chloroethane	-	**2.09E+01**	n	2.10E+01	n	-	2.09E+01	(4)	<0.02	<0.01	<0.02
Chloroform	1.00E-01	1.93E-03	c	1.90E-03	c	**8.00E-02**	8.00E-02	(2)	<0.01	<0.005	<0.01
Chloromethane	-	**1.88E-01**	n	1.90E-01	n	-	1.88E-01	(4)	<0.03	<0.015	<0.03
cis-1,2-DCE	-	7.30E-02	n	2.80E-01	n	**7.00E-02**	7.00E-02	(2)	<0.01	<0.005	<0.01
cis-1,3-Dichloropropene	-	**4.33E-03**	c	-	-	-	4.33E-03	(4)	<0.01	<0.005	<0.01
Dibromochloromethane	-	1.47E-03	c	1.50E-03	c	**8.00E-02**	8.00E-02	(2)	<0.01	<0.005	<0.01
Dibromomethane	-	**8.16E-03**	n	7.90E-03	n	-	8.16E-03	(4)	<0.01	<0.005	<0.01
Dichlorodifluoromethane	-	**2.03E-01**	n	1.90E-01	n	-	2.03E-01	(4)	<0.01	<0.005	<0.01
Ethylbenzene	7.50E-01	1.48E-02	c	1.30E-02	c	**7.00E-01**	7.00E-01	(2)	0.049	0.054	<0.01
Hexachlorobutadiene	-	**8.62E-03**	c	2.60E-03	c*	-	8.62E-03	(4)	<0.01	<0.005	<0.01
Isopropylbenzene (Cumene)	-	**6.79E-01**	n	3.90E-01	n	-	6.79E-01	(4)	0.0063	0.0081	<0.01
Methyl tert-butyl ether (MTBE)	-	**1.25E-01**	c	1.20E-01	c	-	1.25E-01	(4)	**0.31**	**0.25**	**0.44**
Methylene Chloride	1.00E-01	1.86E-01	n	9.90E-02	c**	**5.00E-03**	5.00E-03	(2)	<0.03	**0.0075**	<0.03
Naphthalene	-	**1.43E-03**	c	1.40E-03	c*	-	1.43E-03	(4)	**0.042**	**0.045**	<0.02
n-Butylbenzene	-	-	-	**7.80E-01**	n	-	7.80E-01	(1)	<0.01	0.0043	<0.03
n-Propylbenzene	-	-	-	**5.30E-01**	n	-	5.30E-01	(1)	0.01	0.012	<0.01
sec-Butylbenzene	-	-	-	-	-	-	-		<0.01	0.0035	<0.01
Styrene	-	1.62E+00	n	1.10E+00	n	**1.00E-01**	1.00E-01	(2)	<0.01	<0.005	<0.01
tert-Butylbenzene	-	-	-	-	-	-	-		<0.01	<0.005	<0.01
Tetrachloroethene (PCE)	2.00E-02	1.08E-03	c	9.70E-02	c**	**5.00E-03**	5.00E-03	(2)	<0.01	<0.005	<0.01
Toluene	**7.50E-01**	2.28E+00	n	8.60E-01	n	1.00E+00	7.50E-01	(3)	<0.01	0.013	<0.01
trans-1,2-DCE	-	1.07E-01	n	8.60E-02	n	**1.00E-01**	1.00E-01	(2)	<0.01	<0.005	<0.01
trans-1,3-Dichloropropene	-	-	-	-	-	-	-		<0.01	<0.005	<0.01
Trichloroethene (TCE)	1.00E-01	3.40E-03	n	4.40E-03	c**	**5.00E-03**	5.00E-03	(2)	<0.01	<0.005	<0.01

Table 10
Old API Separator Groundwater Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	NMED WQCC Standards (mg/L)	NMED Tap Water (mg/L)	Tap Water key	EPA Screening Levels Tap Water (mg/L)	Tap Water key	MCL (mg/L)	Screening Levels	Source	SWMU 14-2 GW	SWMU 14-3 GW	SWMU 14-OAPIS-1GW
				1.00E+01					1207940-029	1207900-007	1210860-004
Sample Date	(3)	(4)		(1)		(2)			7/19/2012	7/18/2012	10/16/2012
Trichlorofluoromethane	-	**1.29E+00**	n	1.10E+00	n	-	1.29E+00	(4)	<0.01	<0.005	<0.01
Vinyl chloride	**1.00E-03**	1.62E-04	c	1.50E-04	c	2.00E-03	1.00E-03	(3)	<0.01	<0.005	<0.01
Xylenes, Total	**6.20E-01**	2.03E-01	n	1.90E-01	n	1.00E+01	6.20E-01	(3)	0.045	0.044	<0.015
Semi Volatile Organics - (EPA Method 8270C)											
1,2,4-Trichlorobenzene	-	4.12E-03	n	9.90E-03	c**	**7.00E-02**	7.00E-02	(2)	<0.01	<0.01	<0.01
1,2-Dichlorobenzene	-	3.70E-01	n	2.80E-01	n	**6.00E-01**	6.00E-01	(2)	<0.01	<0.01	<0.01
1,3-Dichlorobenzene	-	-	-	-	-	-	-		<0.01	<0.01	<0.01
1,4-Dichlorobenzene	-	4.27E-03	c	4.20E-03	c	**7.50E-02**	7.50E-02	(2)	<0.01	<0.01	<0.01
1-Methylnaphthalene	-	-	-	**9.70E-03**	c	-	9.70E-03	(5)	<0.01	**0.14**	<0.01
2,4,5-Trichlorophenol	-	**3.65E+00**	n	8.90E-01	n	-	3.65E+00	(4)	<0.01	<0.01	<0.01
2,4,6-Trichlorophenol	-	**3.65E-02**	n	3.50E-02	c**	-	3.65E-02	(4)	<0.01	<0.01	<0.01
2,4-Dichlorophenol	-	**1.10E-01**	n	3.50E-02	n	-	1.10E-01	(4)	<0.02	<0.02	<0.02
2,4-Dimethylphenol	-	**7.30E-01**	n	2.70E-01	n	-	7.30E-01	(4)	0.027	0.034	<0.01
2,4-Dinitrophenol	-	**7.30E-02**	n	3.00E-02	n	-	7.30E-02	(4)	<0.02	<0.02	<0.02
2,4-Dinitrotoluene	-	**2.17E-03**	c	2.00E-03	c	-	2.17E-03	(4)	<0.01	<0.01	<0.01
2,6-Dinitrotoluene	-	**3.65E-02**	n	1.50E-02	n	-	3.65E-02	(4)	<0.01	<0.01	<0.01
2-Chloronaphthalene	-	**1.21E-03**	n	5.50E-01	n	-	1.21E-03	(4)	<0.01	<0.01	<0.01
2-Chlorophenol	-	**1.83E-01**	n	7.10E-02	n	-	1.83E-01	(4)	<0.01	<0.01	<0.01
2-Methylnaphthalene	-	-	-	**2.70E-02**	n	-	2.70E-02	(1)	<0.01	**0.077**	<0.01
2-Methylphenol	-	-	-	**7.20E-01**	n	-	7.20E-01	(1)	<0.01	0.0073	<0.01
2-Nitroaniline	-	-	-	**1.50E+00**	n	-	1.50E+00	(1)	<0.01	<0.01	<0.01
2-Nitrophenol	-	-	-	-	-	-	-		<0.01	<0.01	<0.01
3,3'-Dichlorobenzidine	-	**1.49E-03**	c	1.10E-03	c	-	1.49E-03	(4)	<0.01	<0.01	<0.01
3+4-Methylphenol	-	-	-	-	-	-	-		<0.01	<0.01	<0.01
3-Nitroaniline	-	-	-	-	-	-	-		<0.01	<0.01	<0.01
4,6-Dinitro-2-methylphenol	-	-	-	**1.20E-03**	n	-	1.20E-03	(1)	<0.02	<0.02	<0.02
4-Bromophenyl phenyl ether	-	-	-	-	-	-	-		<0.01	<0.01	<0.01
4-Chloro-3-methylphenol	-	-	-	**1.10E+00**	n	-	1.10E+00	(1)	<0.01	<0.01	<0.01
4-Chloroaniline	-	-	-	**3.20E-03**	c	-	3.20E-03	(5)	<0.01	<0.01	<0.01
4-Chlorophenyl phenyl ether	-	-	-	-	-	-	-		<0.01	<0.01	<0.01
4-Nitroaniline	-	-	-	**3.30E-02**	c*	-	3.30E-02	(5)	<0.02	<0.02	<0.01
4-Nitrophenol	-	-	-	-	-	-	-		<0.01	<0.01	<0.01
Acenaphthene	-	**2.19E+00**	n	4.00E-01	n	-	2.19E+00	(4)	<0.01	<0.01	<0.01
Acenaphthylene	-	-	-	-	-	-	-		<0.01	<0.01	<0.01
Aniline	-	-	-	**1.20E-01**	c**	-	1.20E-01	(5)	<0.01	<0.01	<0.01
Anthracene	-	**1.10E+01**	n	1.30E+00	n	-	1.10E+01	(4)	<0.01	<0.01	<0.01
Azobenzene	-	-	-	**1.00E-03**	c	-	1.00E-03	(5)	<0.01	<0.01	<0.01
Benz(a)anthracene	-	**2.95E-04**	c	2.90E-04	c	-	2.95E-04	(4)	<0.01	<0.01	<0.01
Benzo(a)pyrene	7.00E-04	2.95E-05	c	2.90E-05	c	**2.00E-04**	2.00E-04	(2)	<0.01	<0.01	<0.01
Benzo(b)fluoranthene	-	**2.95E-04**	c	2.90E-04	c	-	2.95E-04	(4)	<0.01	<0.01	<0.01
Benzo(g,h,i)perylene	-	-	-	-	-	-	-		<0.01	<0.01	<0.01
Benzo(k)fluoranthene	-	**2.95E-03**	c	2.90E-03	c	-	2.95E-03	(4)	<0.01	<0.01	<0.01
Benzoic acid	-	-	-	**5.80E+01**	n	-	5.80E+01	(1)	<0.02	<0.02	<0.02
Benzyl alcohol	-	-	-	**1.50E+00**	n	-	1.50E+00	(1)	<0.01	<0.01	<0.01
Bis(2-chloroethoxy)methane	-	-	-	**4.60E-02**	n	-	4.60E-02	(1)	<0.01	<0.01	<0.01
Bis(2-chloroethyl)ether	-	**1.19E-04**	c	1.20E-04	c	-	1.19E-04	(4)	<0.01	<0.01	<0.01
Bis(2-chloroisopropyl)ether	-	**9.60E-03**	c	3.10E-03	c	-	9.60E-03	(4)	<0.01	<0.01	<0.01
Bis(2-ethylhexyl)phthalate	-	4.80E-02	c	4.80E-02	c*	**6.00E-03**	6.00E-03	(2)	<0.01	<0.01	<0.01
Butyl benzyl phthalate	-	-	-	**1.40E-01**	c*	-	1.40E-01	(5)	<0.01	<0.01	<0.01
Carbazole	-	-	-	-	-	-	-		<0.01	<0.01	<0.01

Table 10
Old API Separator Groundwater Analytical Results Summary
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	NMED WQCC Standards (mg/L)	NMED Tap Water (mg/L)	Tap Water key	EPA Screening Levels Tap Water (mg/L)	Tap Water key	MCL (mg/L)	Screening Levels	Source	SWMU 14-2 GW	SWMU 14-3 GW	SWMU 14-OAPIS-1GW
				1.00E+01					1207940-029	1207900-007	1210860-004
Sample Date	(3)	(4)		(1)		(2)			7/19/2012	7/18/2012	10/16/2012
Chrysene	-	**2.95E-02**	c	2.90E-02	c	-	2.95E-02	(4)	<0.01	<0.01	<0.01
Dibenz(a,h)anthracene	-	**2.95E-05**	c	2.90E-05	c	-	2.95E-05	(4)	<0.01	<0.01	<0.01
Dibenzofuran	-	-	-	**2.20E-01**	n	-	2.20E-01	(1)	<0.01	<0.01	<0.01
Diethyl phthalate	-	**2.92E+01**	n	1.10E+01	n	-	2.92E+01	(4)	<0.01	<0.01	<0.01
Dimethyl phthalate	-	**3.65E+02**	n	-	-	-	3.65E+02	(4)	<0.01	<0.01	<0.01
Di-n-butyl phthalate	-	**3.65E+00**	n	6.70E-01	n	-	3.65E+00	(4)	0.02	<0.01	<0.01
Di-n-octyl phthalate	-	-	-	-	-	-	-		<0.01	<0.01	<0.02
Fluoranthene	-	**1.46E+00**	n	6.30E-01	n	-	1.46E+00	(4)	<0.01	<0.01	<0.01
Fluorene	-	**1.46E+00**	n	2.20E-01	n	-	1.46E+00	(4)	<0.01	<0.01	<0.01
Hexachlorobenzene	-	4.20E-04	c	4.20E-04	c	**1.00E-03**	1.00E-03	(2)	<0.01	<0.01	<0.01
Hexachlorobutadiene	-	**8.62E-03**	c	2.60E-03	c*	-	8.62E-03	(4)	<0.01	<0.01	<0.01
Hexachlorocyclopentadiene	-	2.19E-01	n	2.20E-02	n	**5.00E-02**	5.00E-02	(2)	<0.01	<0.01	<0.01
Hexachloroethane	-	**1.68E-02**	c	7.90E-03	c**	-	1.68E-02	(4)	<0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene	-	**2.95E-04**	c	2.90E-04	c	-	2.95E-04	(4)	<0.01	<0.01	<0.01
Isophorone	-	**7.07E-01**	c	6.70E-01	c*	-	7.07E-01	(4)	<0.01	<0.01	<0.01
Naphthalene	-	**1.43E-03**	c	1.40E-03	c*	-	1.43E-03	(4)	<0.01	**0.024**	<0.01
Nitrobenzene	-	**1.22E-03**	c	1.20E-03	c*	-	1.22E-03	(4)	<0.01	<0.01	<0.01
N-Nitrosodimethylamine				**9.30E-05**					<0.01	<0.01	<0.01
N-Nitrosodi-n-propylamine	-	-	-	1.00E-01	c	-	9.30E-05	(5)	<0.01	<0.01	<0.01
N-Nitrosodiphenylamine	-	**1.37E-01**	c	3.50E-04	c	-	1.37E-01	(4)	<0.01	<0.01	<0.01
Pentachlorophenol	-	1.68E-03	c	-	c	**1.00E-03**	1.00E-03	(2)	<0.02	<0.02	<0.02
Phenanthrene	-	**1.10E+00**	n	-	-	-	1.10E+00	(4)	<0.01	0.02	<0.01
Phenol	-	**1.10E+01**	n	8.70E-02	n	-	1.10E+01	(4)	<0.01	<0.01	<0.01
Pyrene	-	**1.10E+00**	n	**1.50E-02**	n	-	1.10E+00	(4)	<0.01	<0.01	<0.01
Pyridine	-	-	-	**1.50E-01**	n	-	1.50E-01	(1)	<0.01	<0.01	<0.01
Diesel Range Organics (DRO)	-	2.00E-01	-	-	-	-	-	(6)	**6.5**	**83**	<1
Gasoline Range Organics (GRO)	-	-	-	-	-	-	-		1.2	1.5	<0.5
Motor Oil Range Organics (MRO)	-	-	-	-	-	-	-		<5	<50	<5

-- No screening level or analytical result available
450 - bolded value exceeds screening level
(1) EPA - Regional Screening Levels (November 2012) - Tap Water
(2) EPA - Regional Screening Levels (November 2012) - MCL
(3) NMED WQCC standards - Title 20 Chapter 6, Part 2, - 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS Concentration or less
(4) NMED Tap Water Screening Levels (June 2012)
(5) EPA - Regional Screening Levels (November 2012) - Tap Water; carcinogenic screening levels multiplied by 10

TABLE 11
Groundwater Field Measurements
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

		Ground Water Data						
Well	Date	Well Volume	Temp (degrees C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	ORP	Purge Volume (calculated / actual - gallons)
OAPIS-1	10/15/2012	0	19.24	5.618	3.73	7.78	-47.1	9.15/9.25
		1	18.19	5.596	4.53	7.24	-95.2	
		2	16.97	5.450	4.71	6.98	-79.1	
		3	15.99	5.331	4.94	6.86	-81.8	

TABLE 12
Water Level Measurements
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Well	Date	Top of Casing (ft-msl)	Depth to Bottom (ft)	Depth to Product (ft)	Depth to Water (ft)	Groundwater Elevation (ft-msl)	Product Thickness (ft)
OAPIS-1	10/15/2012		28.55	NPP	10.6	-10.6	0

NPP - no product present

Table 13
Soil Cumulative Risk and Hazard Index Evaluation
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Maximum Concentration	Maximum Concentration divided by Residential Soil Screening Level	Maximum Concentration divided by Non-Residential Soil Screening Level
CARCINOGENIC CONSTITUENTS							
Metals (mg/kg)							
Arsenic	3.90E+00	(1)	1.77E+01	(4)	1.6	0.4105	0.0904
Chromium VI	2.97E+00	(1)	6.31E+01	(4)	400	134.7449	6.3350
Volatile Organic Compounds - (EPA Method 8260) mg/kg							
1,1,2-Trichloroethane	2.81E+00	(1)	1.33E+01	(4)	1	0.3557	0.0750
1,1-Dichloroethane	6.45E+01	(1)	3.59E+02	(4)	0.000918	0.0000	0.0000
1,2-Dibromo-3-chloropropane	1.86E+00	(1)	1.08E+00	(4)	2.2	1.1804	2.0285
1,2-Dibromoethane (EDB)	5.88E-01	(1)	3.22E+00	(4)	1.2	2.0400	0.3728
1,2-Dichloropropane	1.52E+01	(1)	2.50E+01	(5)	0.82	0.05381	0.03280
1,4-Dichlorobenzene	3.17E+01	(1)	1.77E+02	(4)	0.000252	0.00001	0.00000
1-Methylnaphthalene	1.60E+02	(3)	5.30E+02	(7)	45	0.28125	0.08491
Benzene	1.54E+01	(1)	8.47E+01	(4)	5.9	0.38357	0.06965
Chloroform	5.86E+00	(1)	3.27E+01	(4)	0.0069	0.00118	0.00021
Ethylbenzene	6.84E+01	(1)	3.78E+02	(4)	23	0.33602	0.06091
Methyl tert-butyl ether (MTBE)	9.01E+02	(1)	4.89E+03	(4)	1.5	0.00166	0.00031
Methylene chloride	4.09E+02	(1)	1.12E+03	(5)	2	0.00489	0.00179
Naphthalene	4.30E+01	(1)	1.58E+02	(5)	17	0.39565	0.10769
Semi Volatile Organics - (EPA Method 8270) mg/kg							
Benz(a)anthracene	1.48E+00	(1)	2.34E+01	(4)	0.61	0.4132	0.0260
Bis(2-chloroethyl)ether	2.68E+00	(1)	1.42E+01	(4)	0.43	0.1605	0.0303
Bis(2-ethylhexyl)phthalate	3.47E+02	(1)	1.37E+03	(4)	2.6	0.0075	0.0019
Chrysene	1.48E+02	(1)	2.34E+03	(4)	0.65	0.0044	0.0003
Carcinogenic Constituents Cumulative Risk x 10^{-5}						**140.775**	**9.319**
NON-CARCINOGENIC CONSTITUENTS							
Metals (mg/kg)							
Antimony	3.13E+01	(1)	1.24E+02	(5)	**5.3**		
Barium	1.56E+04	(1)	4.35E+03	(5)	2400	0.1543	0.5513
Beryllium	1.56E+02	(1)	1.44E+02	(5)	1.4	0.0090	0.0097
Chromium III	1.17E+05	(1)	4.65E+05	(5)	400	0.0034	0.0009
Cobalt	2.30E+01	(2)	3.00E+02	(6)	11	0.4783	0.0367
Cyanide	4.69E+01	(1)	1.86E+02	(5)	6	0.1279	0.0323

Table 13
Soil Cumulative Risk and Hazard Index Evaluation
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Maximum Concentration	Maximum Concentration divided by Residential Soil Screening Level	Maximum Concentration divided by Non-Residential Soil Screening Level
Iron	5.48E+04	(1)	2.17E+05	(5)	26000	0.4749	0.1199
Lead	4.00E+02	(1)	8.00E+02	(5)	80	0.2000	0.1000
Manganese	1.86E+03	(1)	4.40E+02	(5)	2800	1.5014	6.3568
Mercury	1.56E+01	(1)	1.36E+01	(5)	1.4	0.0896	0.1028
Nickel	1.56E+03	(1)	6.19E+03	(5)	17	0.0109	0.0027
Vanadium	3.91E+02	(1)	1.55E+03	(5)	53	0.1355	0.0342
Zinc	2.35E+04	(1)	9.29E+04	(5)	720	0.0307	0.0077
Volatile Organic Compounds - (EPA Method 8260) mg/kg							
1,1,2,2-Tetrachloroethane	8.02E+00	(1)	4.35E+01	(4)	0.00104	0.0001	0.0000
1,2,4-Trimethylbenzene	6.20E+01	(2)	2.60E+02	(6)	44	0.7097	0.1692
1,3,5-Trimethylbenzene	7.80E+02	(2)	1.00E+04	(6)	16	0.0205	0.0016
2-Butanone (MEK)	3.71E+04	(1)	8.43E+04	(5)	0.0722		
2-Chlorotoluene	1.56E+03	(1)	6.19E+03	(5)	0.46	0.0003	0.0001
2-Hexanone	9.38E+02	(1)	9.73E+02	(5)	0.37	0.0004	0.0004
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	90	0.3913	0.0409
4-Isopropyltoluene	-	-	-	-	3.4	-	-
4-Methyl-2-pentanone	5.30E+03	(2)	5.30E+04	(6)	0.0142	0.0000	0.0000
Acetone	6.66E+04	(1)	2.21E+05	(5)	54.1	0.0008	0.0002
Carbon disulfide	1.53E+03	(1)	1.58E+03	(5)	0.025	0.0000	0.0000
Chlorobenzene	3.76E+02	(1)	4.06E+02	(5)	0.11	0.0003	0.0003
Chloromethane	2.75E+02	(1)	2.41E+02	(5)	0.013	0.0000	0.0001
Isopropylbenzene	2.43E+03	(1)	2.81E+03	(5)	6.6	0.0027	0.0024
n-Butylbenzene	3.90E+03	(2)	5.10E+04	(6)	4.6	0.0012	0.0001
n-Propylbenzene	3.40E+03	(2)	2.10E+04	(6)	8.1	0.0024	0.0004
sec-Butylbenzene	-	-	-	-	3.8	-	-
Styrene	7.28E+03	(1)	9.99E+03	(5)	0.077	0.0000	0.0000
Toluene	5.27E+03	(1)	1.34E+04	(5)	45	0.0085	0.0033
Trichlorofluoromethane	1.41E+03	(1)	1.30E+03	(5)	0.000685	0.0000	0.0000
Xylenes, Total	8.14E+02	(1)	7.43E+02	(5)	120	0.1474	0.1615
Semi Volatile Organics - (EPA Method 8270) mg/kg							
2,4-Dimethylphenol	1.22E+03	(1)	4.76E+03	(5)	0.64	0.0005	0.0001
2,4-Dinitrophenol	1.22E+02	(1)	4.76E+02	(5)	0.66	0.0054	0.0014
2-Methylnaphthalene	2.30E+02	(2)	2.20E+03	(6)	55	0.2391	0.0250

Table 13
Soil Cumulative Risk and Hazard Index Evaluation
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Residential Soil Screening Level	Source	Non-Residential Soil Screening Level	Source	Maximum Concentration	Maximum Concentration divided by Residential Soil Screening Level	Maximum Concentration divided by Non-Residential Soil Screening Level
3+4-Methylphenol	-	-	-	-	2.2	-	-
4-Nitrophenol	-	-	-	-	0.22	-	-
Acenaphthene	3.44E+03	(1)	1.86E+04	(5)	2	0.0006	0.0001
Benzoic acid	2.40E+05	(2)	2.50E+06	(6)	2.3	0.0000	0.0000
Benzyl alcohol	6.10E+03	(2)	6.20E+04	(6)	0.32	0.0001	0.0000
Fluorene	2.29E+03	(1)	8.91E+03	(5)	3.7	0.0016	0.0004
Phenanthrene	1.83E+03	(1)	7.15E+03	(5)	11	0.0060	0.0015
Phenol	1.83E+04	(1)	6.88E+04	(5)	2.8	0.0002	0.0000
Pyrene	1.72E+03	(1)	6.68E+03	(5)	2.6	0.0015	0.0004
Non-Carcinogenic Constituents Hazard Index						**1.541**	**0.410**

-- No screening level or analytical result available

NMED - Risk Assessment Guidance for Site Investigations and Remediation (June 14, 2012)

EPA - Regional Screening Levels (May 2012)

(1) NMED Residential Screening Level
(2) EPA Residential Screening Level
(3) EPA Residential - Screening Levels x 10
(4) NMED Industrial Occupational Screening Level
(5) NMED Construction Worker Screening Level
(6) EPA Industrial - Screening Levels
(7) EPA Industrial - Screening Levels x 10

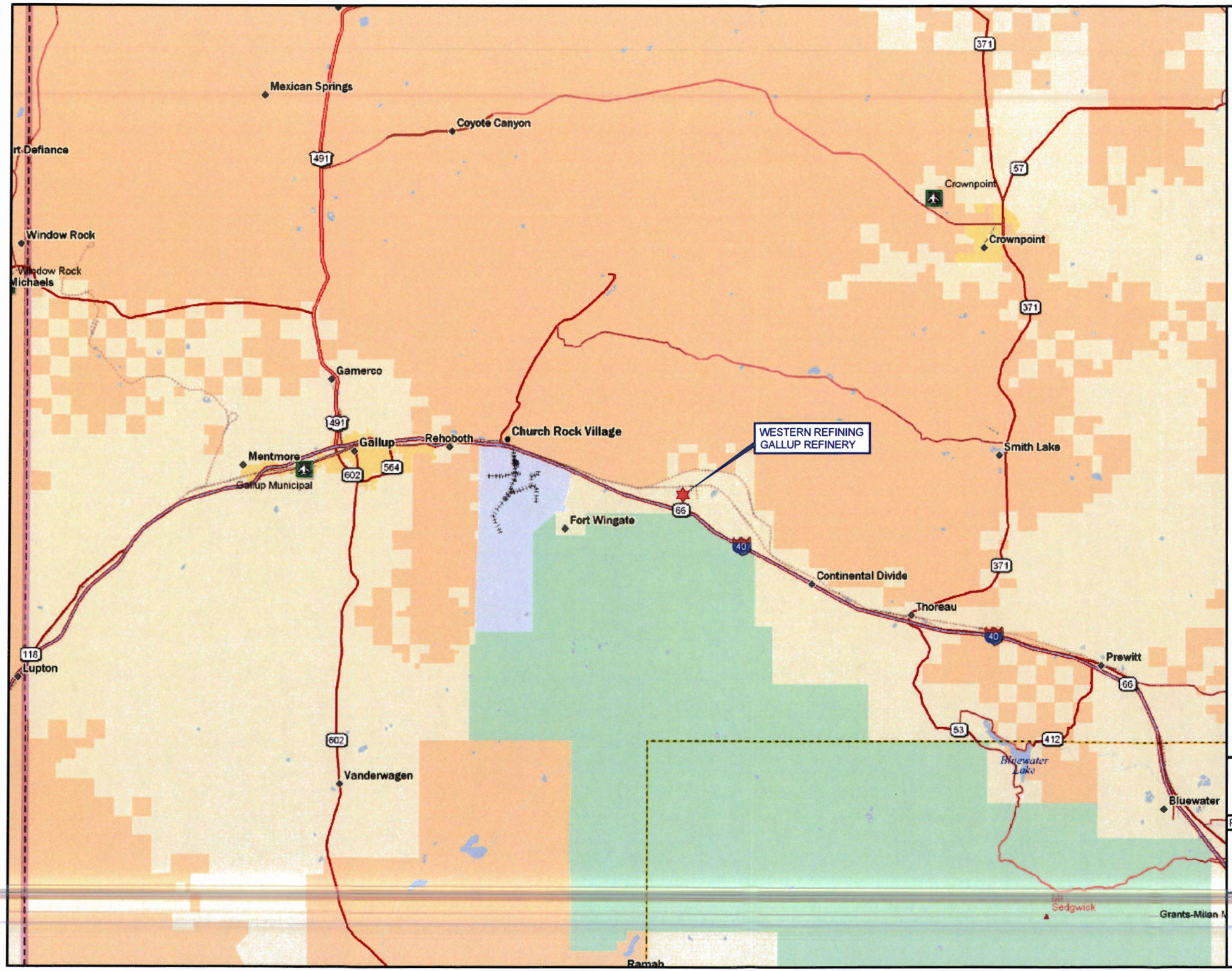
Table 14
Groundwater Cumulative Risk and Hazard Index Evaluation
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Screening Levels	Source	Maximum Concentration	Maximum Concentration divided by Residential Groundwater Screening Level
CARCINOGENIC CONSTITUENTS				
Metals (mg/l)				
Arsenic	1.00E-02	(2)	0.063	6.3
Volatile Organic Compounds - (EPA Method 8260) ug/l				
1,1,2,2-Tetrachloroethane	2.00E-02	(3)	0.18	9.00
1,2,4-Trichlorobenzene	7.00E-02	(2)	0.54	7.71
1,2-Dibromo-3-chloropropane	2.00E-04	(2)	0.023	115.00
1-Methylnaphthalene	9.70E-03	(5)	0.011	1.13
Benzene	5.00E-03	(2)	0.024	4.80
Bromodichloromethane	8.00E-02	(2)	0.0079	0.10
Bromoform	8.00E-02	(2)	0.0027	0.03
Carbon Tetrachloride	5.00E-03	(2)	0.17	34.00
Dibromochloromethane	8.00E-02	(2)	0.0033	0.04
Ethylbenzene	7.00E-01	(2)	0.097	0.14
Methyl tert-butyl ether (MTBE)	1.25E-01	(4)	0.31	2.49
Naphthalene	1.43E-03	(4)	0.032	22.36
Semi Volatile Organics - (EPA Method 8270) ug/l				
1,2,4-Trichlorobenzene	7.00E-02	(2)	7.50E-03	0.11
1,4-Dichlorobenzene	7.50E-02	(2)	1.20E-02	0.16
1-Methylnaphthalene	9.70E-03	(5)	1.00E-02	1.03
4-Chloroaniline	3.20E-03	(5)	3.40E-02	10.63
Aniline	1.20E-01	(5)	7.70E-02	0.64
Carcinogenic Constituents Cumulative Risk x 10^{-5}				**215.67**
NON-CARCINOGENIC CONSTITUENTS				
Metals (mg/l)				
Antimony	6.00E-03	(2)	0.00085	0.14
Barium	1.00E+00	(3)	56	56.00
Beryllium	4.00E-03	(2)	0.21	52.50
Chromium	5.00E-02	(3)	0.38	7.60
Cobalt	5.00E-02	(3)	0.53	10.60
Cyanide, Total	2.00E-01	(3)	0.216	1.08
Iron, Total	1.00E+00	(3)	160	160.00
Lead	1.50E-02	(2)	1.7	113.33
Manganese, Total	2.00E-01	(3)	95	475.00
Mercury	2.00E-03	(3)	0.00034	0.17
Nickel	2.00E-01	(3)	0.95	4.75
Selenium	5.00E-02	(3)	0.059	1.18
Vanadium	1.83E-01	(4)	0.52	2.85
Zinc	1.00E+01	(3)	1.1	0.11
Volatile Organic Compounds - (EPA Method 8260) ug/l				
1,1,1-Trichloroethane	6.00E-02	(3)	0.011	0.18
1,1-Dichloroethene	5.00E-03	(3)	0.0077	1.54
1,1-Dichloropropene	-		0.029	-
1,2,3-Trichlorobenzene	5.20E-02	(1)	0.14	2.69
1,2,4-Trimethylbenzene	1.50E-02	(1)	0.18	12.00
1,3,5-Trimethylbenzene	8.70E-02	(1)	0.008	0.09
2,2-Dichloropropane	-		0.0019	-
2-Butanone	7.06E+00	(4)	0.047	0.01
2-Hexanone	8.76E-01	(4)	0.016	0.02
4-Chlorotoluene	1.90E-01	(1)	0.085	0.45
4-Isopropyltoluene	-		0.012	-
4-Methyl-2-pentanone	1.00E+00	(1)	0.015	0.02

Table 14
Groundwater Cumulative Risk and Hazard Index Evaluation
Western Refining Southwest, Inc. - Gallup Refinery
Gallup, New Mexico

Analytes	Screening Levels	Source	Maximum Concentration	Maximum Concentration divided by Residential Groundwater Screening Level
Acetone	2.18E+01	(4)	0.27	0.01
Bromomethane	8.66E-03	(4)	0.003	0.35
Carbon disulfide	1.04E+00	(4)	0.03	0.03
Chloroethane	2.09E+01	(4)	0.066	0.00
Chloromethane	1.88E-01	(4)	0.0035	0.02
cis-1,2-DCE	7.00E-02	(2)	0.11	1.57
Dichlorodifluoromethane	2.03E-01	(4)	0.42	2.07
Isopropylbenzene (Cumene)	6.79E-01	(4)	0.0015	0.00
n-Propylbenzene	5.30E-01	(1)	0.0027	0.01
sec-Butylbenzene	-		0.0014	-
Toluene	7.50E-01	(3)	0.018	0.02
Trichlorofluoromethane	1.29E+00	(4)	0.054	0.04
Xylenes, Total	6.20E-01	(3)	0.1	0.16
Semi Volatile Organics - (EPA Method 8270) ug/l				
1,2-Dichlorobenzene	6.00E-01	(2)	0.045	0.08
1,3-Dichlorobenzene	-		0.0043	-
2,4-Dimethylphenol	7.30E-01	(4)	0.85	1.16
2-Methylnaphthalene	2.70E-02	(1)	0.045	1.67
2-Methylphenol	7.20E-01	(1)	0.018	0.03
2-Nitrophenol	-		0.24	-
3+4-Methylphenol	-		0.018	-
3-Nitroaniline	-		0.14	-
4-Nitrophenol	-		0.026	-
Anthracene	1.10E+01	(4)	0.0073	0.00
Dimethyl phthalate	3.65E+02	(4)	0.013	0.00
Phenanthrene	1.10E+00	(3)	0.02	
Phenol	1.10E+01	(4)	0.02	0.00
Non-Carcinogenic Constituents Hazard Index				**909.53**

- No screening level or analytical result available
(1) EPA - Regional Screening Levels (November 2012) - Tap Water
(2) EPA - Regional Screening Levels (November 2012) - MCL
(3) NMED WQCC standards - Title 20 Chapter 6, Part 2, - 20.6.2.3103 Standards for Ground Water of 10,000 mg/l TDS
(4) NMED Tap Water Screening Levels (June 2012)
(5) EPA - Regional Screening Levels (November 2012) - Tap Water; carcinogenic screening levels multiplied by 10



Map Source: DeLorme Street Atlas USA 2007 Plus.

N

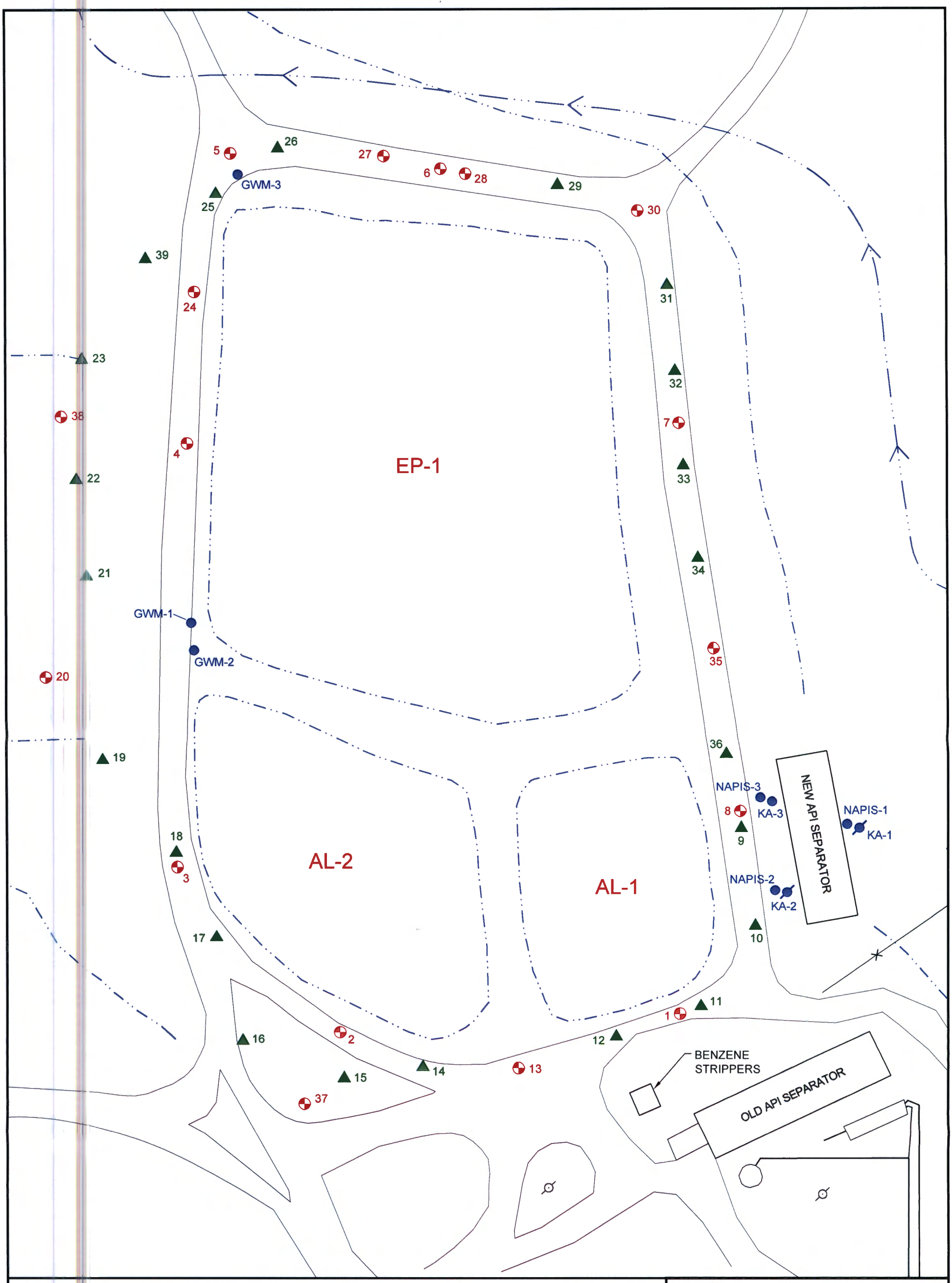
0 5
SCALE IN MILES

Western Refining
GALLUP REFINERY

PROJ. NO.: Western Refining | DATE: 01/31/13 | FILE: WestRef-B165

FIGURE 1
SITE LOCATION MAP
GALLUP REFINERY

RPS
Cielo Center
1250 S. Capital of Texas Highway
Building 3, Suite 200
Austin, Texas 78746
TBPE No. 1298

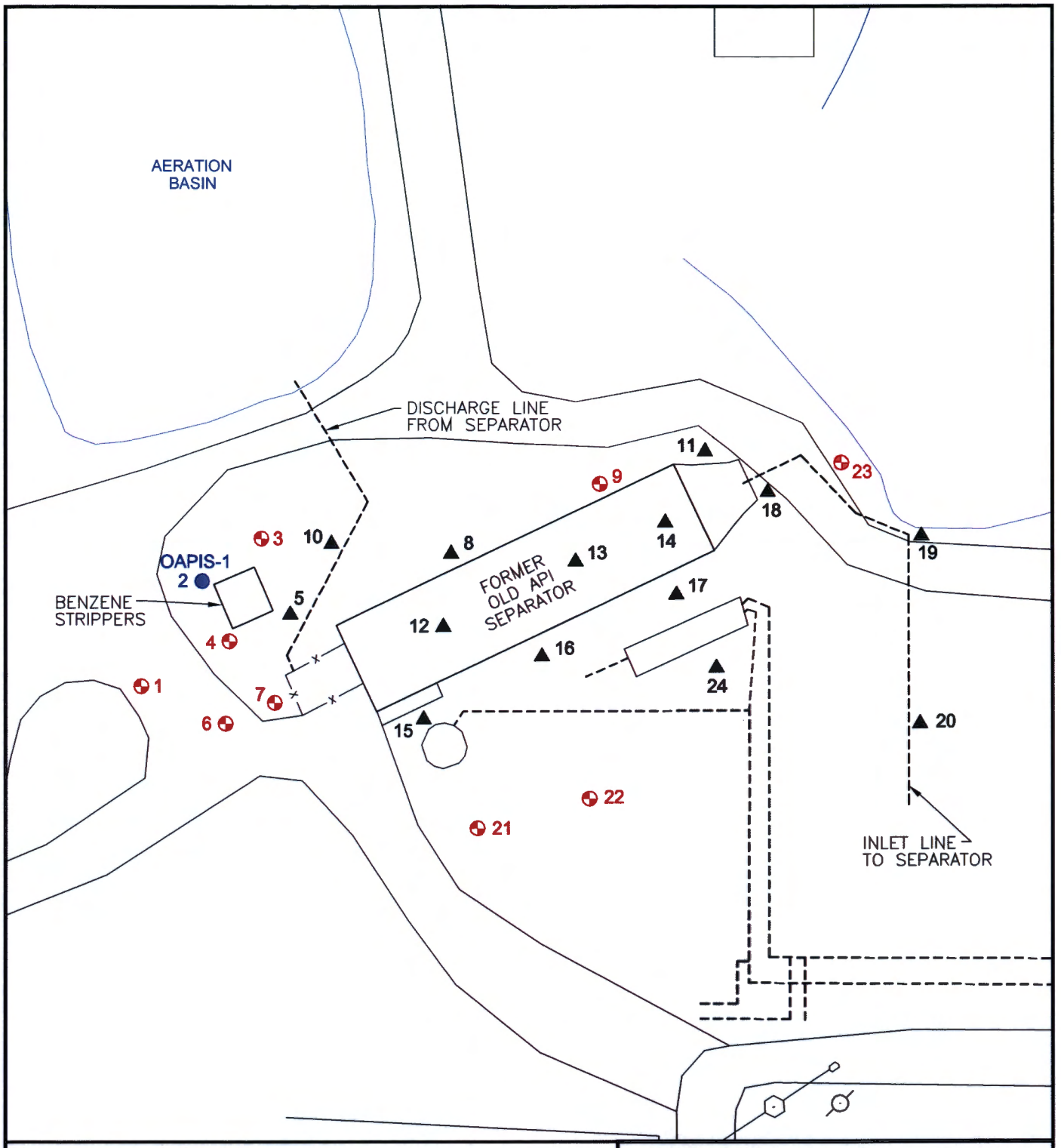


Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining	DATE:01/31/13	FILE:WestRef-B152

FIGURE 2
SWMU No. 1 SAMPLE LOCATIONS
GALLUP REFINERY

RPS
Cielo Center
1250 S. Capital of Texas Highway
Building 3, Suite 200
Austin, Texas 78746
TBPE No. 1298



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

LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- PIPELINE

N

0 40

SCALE IN FEET

NEW MEXICO

QUADRANGLE LOCATION

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining	DATE:01/31/13	FILE:WestRef-A167

FIGURE 3
SWMU No. 14 SAMPLE LOCATIONS
GALLUP REFINERY

RPS
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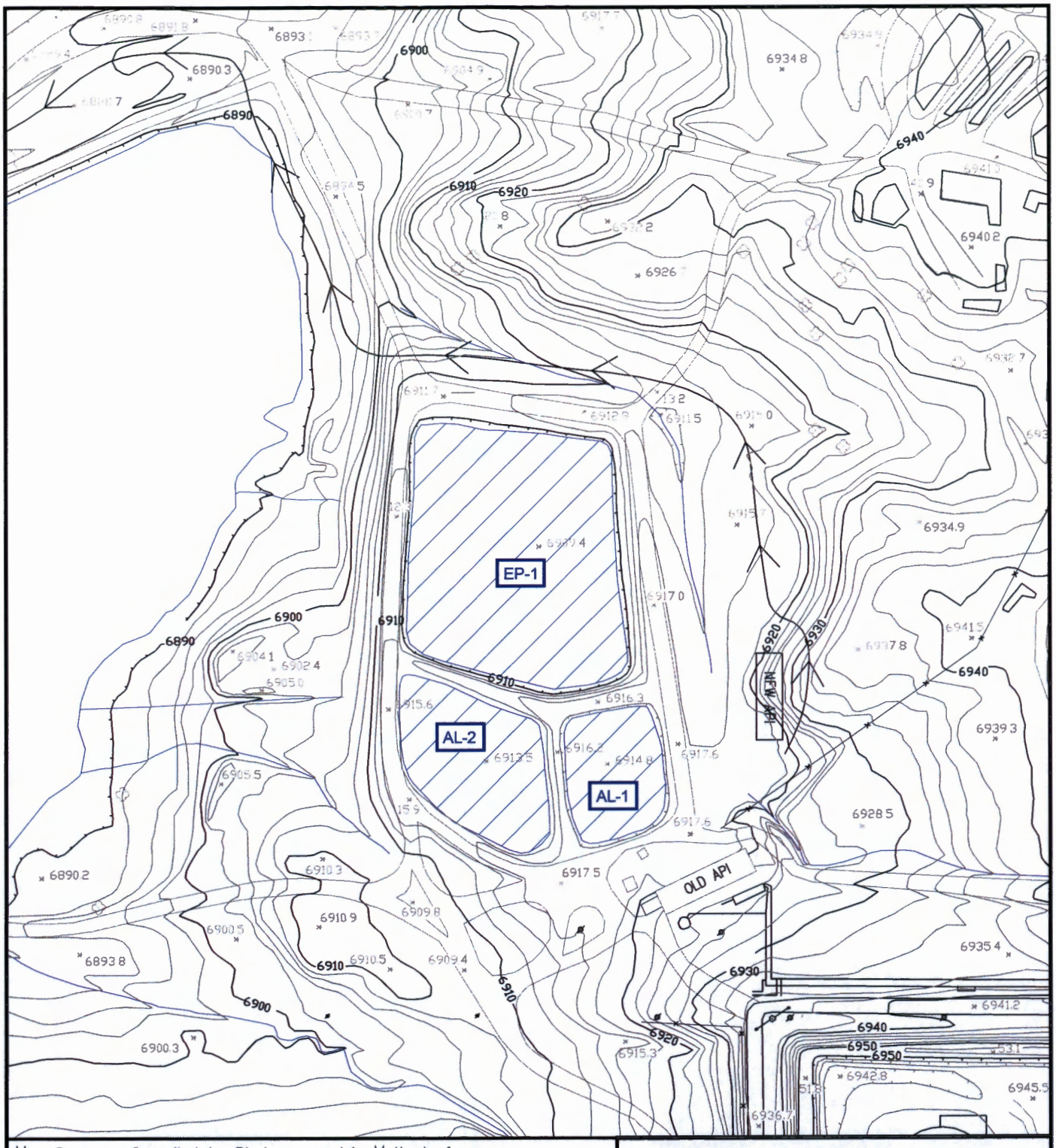
Building 3, Suite 200
Austin, Texas 78746
TBPE No. 1298



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

0 150
SCALE IN FEET

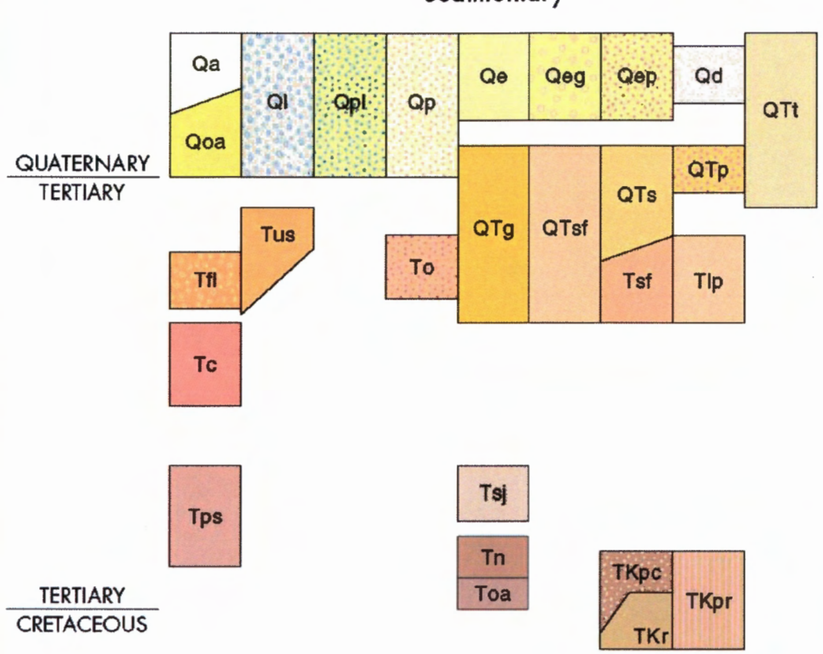
NEW MEXICO
QUADRANGLE LOCATION

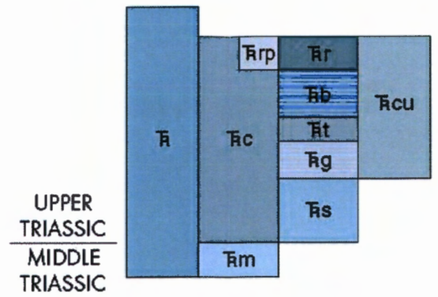
Western Refining
GALLUP REFINERY

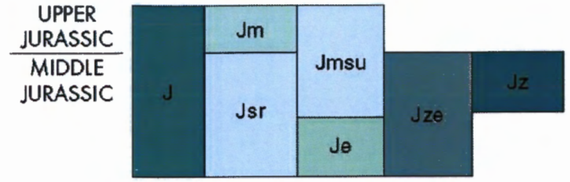
PROJ. NO.:Western Refining | DATE:01/31/13 | FILE:WestRef-A168

FIGURE 4
TOPOGRAPHIC MAP
GALLUP REFINERY

RPS
Cielo Center
1250 S. Capital of Texas Highway
Building 3, Suite 200
Austin, Texas 78746
TBPE No. 1298







DESCRIPTION OF MAP UNITS

QUATERNARY

Qa Alluvium (Holocene to upper Pleistocene)

Ql Landslide deposits and colluvium (Holocene to Pleistocene)—Landslide deposits on western flanks of Socorro Mountains not shown for clarity

Qpl Lacustrine and playa deposits (Holocene)—Includes associated alluvial and eolian deposits of major lake basins

Qp Piedmont alluvial deposits (Holocene to lower Pleistocene)—Includes deposits of higher gradient tributaries bordering major stream valleys, alluvial veneers of the piedmont slope, and alluvial fans. May locally include uppermost Pliocene deposits

TRIASSIC

Chinle Formation of previous workers (e.g., Stewart et al., 1972) is used here as Chinle Group, following Lucas (1993)

Tr **Triassic rocks, undivided**—Continental red beds

Trrp **Rock Point Formation of Chinle Group** (Upper Triassic)—May locally include Wingate Sandstone (Triassic)

Trc **Chinle Group** (Upper Triassic)—Map unit includes Moenkopi Formation (Middle Triassic) at base in many areas; in eastern part of state the following five formations are mapped:

Trr **Redonda Formation** (Upper Triassic)

Trb **Bull Canyon Formation** (Norian)

Trt **Trujillo Formation** (Norian)

Trg **Garita Creek Formation** (Carnian)

Trs **Santa Rosa Formation** (Carnian)—Includes Moenkopi Formation (Middle Triassic) at base in most areas

Trcu **Upper Chinle Group, Garita Creek through Redonda Formations, undivided**

Trm **Moenkopi Formation** (Middle Triassic)

JURASSIC

To compare this map nomenclature to the USGS nomenclature, see the diagram included on this sheet (at right)

J **Upper and Middle Jurassic rocks, undivided.** In southwest includes the basalt-bearing Broken Jug Formation

Jm **Morrison Formation**—Upper Jurassic nonmarine rocks

Jmsu **Morrison Formation and upper San Rafael Group** (lowermost Cretaceous?-upper Jurassic)

Jz **Zuni Sandstone** (Callovian)—Consists of undivided equivalents of the Summerville Formation and Bluff Sandstone; restricted to Zuni Basin area

Jze **Zuni and Entrada Sandstones, undivided**

Je **Entrada Sandstone** (Middle Jurassic)

Jsr **San Rafael Group** (Middle Jurassic)—Consists of Entrada Sandstone, Todilto and Summerville Formations, Bluff Sandstone, and locally Zuni Sandstone (or only Acoma Tongue of Zuni)

Map Source: Geologic Map of New Mexico, 2003.

Western Refining
GALLUP REFINERY

PROJ. NO.: Western Refining | DATE: 01/31/13 | FILE: WestRef-B168

FIGURE 5
GEOLOGIC MAP OF NEW MEXICO
GALLUP REFINERY

RPS
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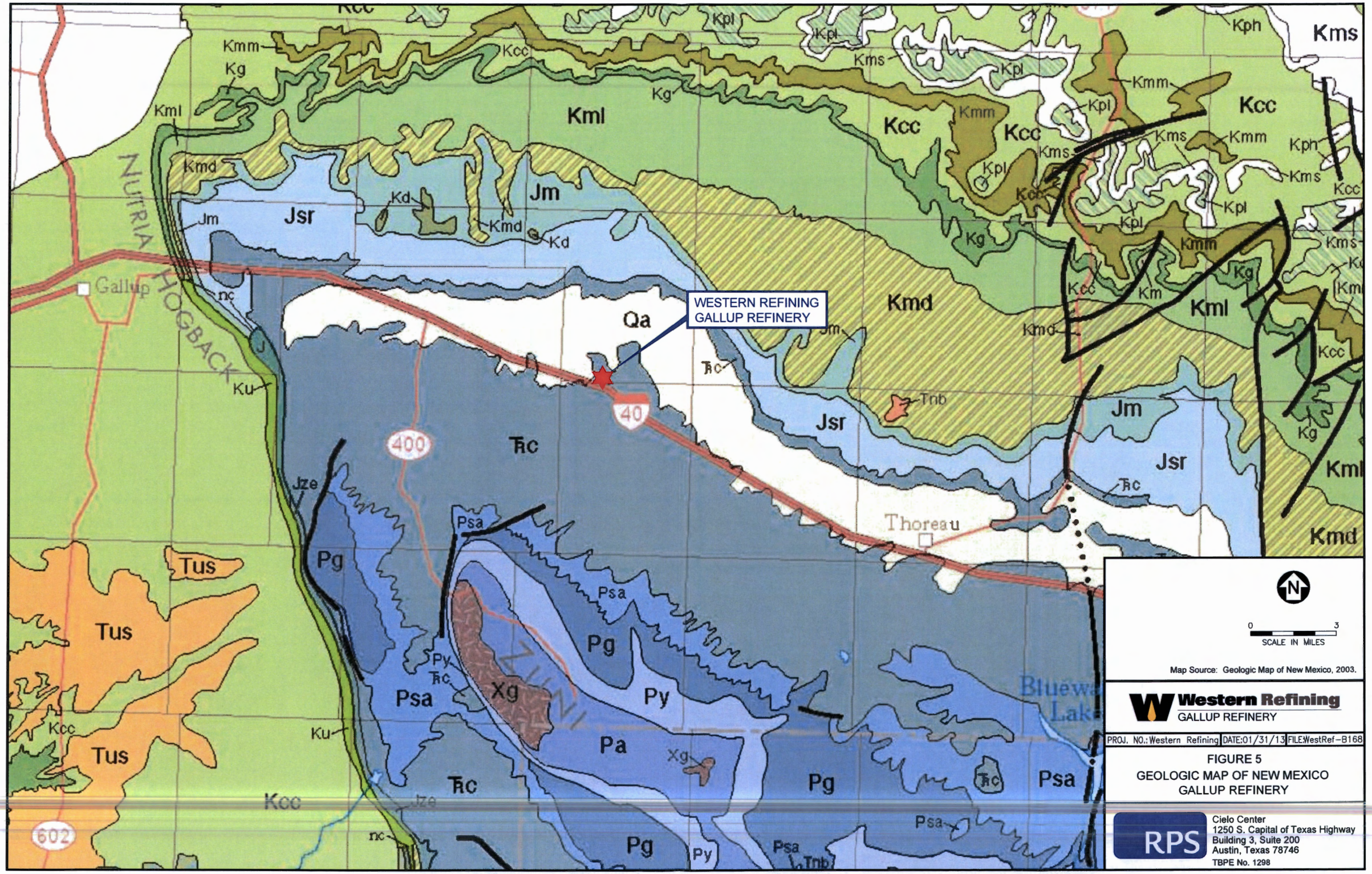
TBPE No. 1298



N

0 3
SCALE IN MILES

Map Source: Geologic Map of New Mexico, 2003.

Western Refining
GALLUP REFINERY

PROJ. NO.: Western Refining | DATE: 01/31/13 | FILE: WestRef-B168

FIGURE 5
GEOLOGIC MAP OF NEW MEXICO
GALLUP REFINERY

RPS
Cielo Center
1250 S. Capital of Texas Highway
Building 3, Suite 200
Austin, Texas 78746
TBPE No. 1298

SOUTHEAST
A

NORTHWEST
A'

ELEVATION (FT MSL)

6950
6925
6900
6875
6850
6825
6800
6775
6750

OW-12
KA-3
GMW-1
MW-4
SMW-2
MW-1
BW2C

SANDSTONE, LT. BROWN, FINE GRAIN
SHALE, RED–BROWN, SILTY, SANDY
SANDSTONE, SILTY, FINE–MEDIUM GRAIN
SHALE, GRAY, SILTY, SANDY
SANDSTONE, GRAY–BLUISH GRAY, FINE GRAIN, THIN BEDDED
SHALE, GRAY, SILTY, SANDY

CLAY, SANDY
SAND
CLAY
MUDSTONE
CLAY
SAND
MUDSTONE

PETRIFIED FOREST FORMATION

SONSELA MEMBER

CLAY, RED–BROWN
GRADES SILTY AND SANDY
SAND
SHALE, RED–BROWN
SHALE/LIMESTONE INTERBEDDED
SHALE, SLIGHT SANDY
SANDSTONE, CLAYEY
SHALE, SANDY
SANDSTONE, WHITE–LT. GRAY
SHALE, PURPLE

QUATERNARY ALLUVIUM

CLAY, SILTY, INTERBEDDED MEDIUM–COARSE SAND
?
SAND
SHALE, SILTY, RED–BROWN
CLAY, SILTY, RED–BROWN
SHALE/LIMESTONE INTERBEDDED
SANDSTONE, WEAKLY CEMENTED
SHALE, PURPLE–RED

CLAY, RED–BROWN, FIRM
SAND
CLAY
SAND–SILT
SAND, SILT, CLAY, INTERBEDDED
CLAY W/ INTERBEDDED SAND LAYERS UP TO 1" THICK
SAND, SILT CLAYEY
?
CLAY
?
SAND
MUDSTONE, WEATHERED
MUDSTONE/ SILTSTONE INTERBEDDED
SANDSTONE
MUDSTONE/ SILTSTONE INTERBEDDED

EXPLANATION

MW-1 — WELL IDENTIFICATION

WELL

SCREEN INTERVAL

LITHOLOGIC CONTACTS

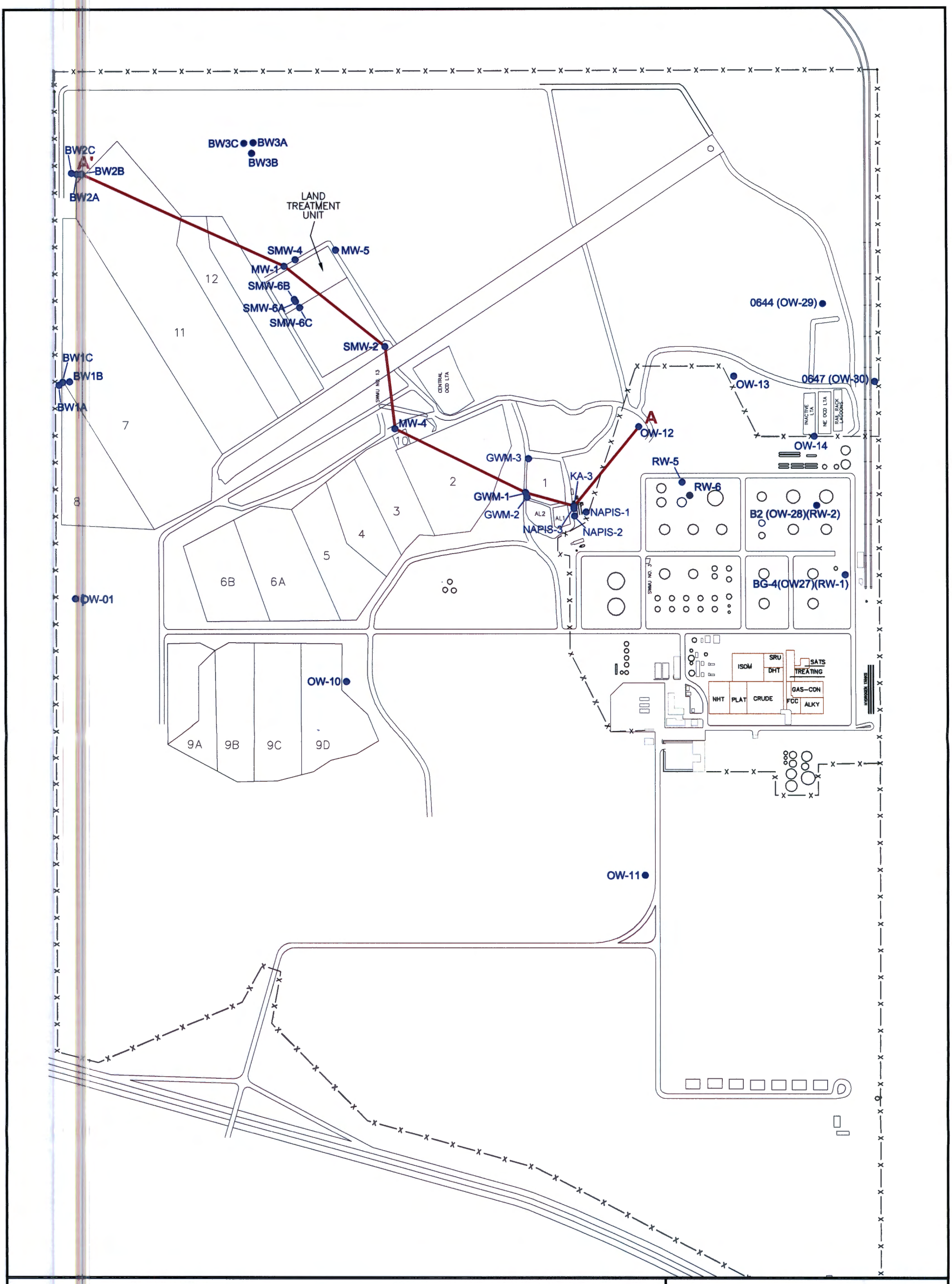
25
0
250
SCALE IN FEET
VERTICAL EXAGGERATION = 10X

Western Refining
GALLUP REFINERY

PROJ. NO.: Western Refining | DATE: 01/31/13 | FILE: WestRef–B160

FIGURE 6
CROSS SECTION A-A'
SOUTHEAST TO NORTHWEST
GALLUP REFINERY

RPS
Cielo Center
1250 S. Capital of Texas Highway
Building 3, Suite 200
Austin, Texas 78746
TBPE No. 1298



Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:01/31/13 | FILE:WestRef-B166

FIGURE 6A
CROSS SECTION LOCATION MAP
GALLUP REFINERY

RPS
Cielo Center
1250 S. Capital of Texas Highway
Building 3, Suite 200
Austin, Texas 78746
TBPE No. 1298

EAST
B

WEST
B'

SWMU-1
AERATION BASIN

ELEVATION (FT MSL)

6920
6915
6910
6905
6900
6895
6890
6885

KA-1
KA-3
GWM-2
GWM-1

AL-1
AL-2
EP-1

SAND, CLAYEY
CLAY, LEAN, SANDY
CLAY, LEAN, SANDY
HYDROCARBON STAINING
ODOR
SAND, WET
CLAY, LEAN, SANDY
WET
MUDSTONE, WEATHERED
ESTIMATED DEPTH BASED ON MEASUREMENTS IN EP-1
PETRIFIED FOREST FORMATION
CLAY, SANDY, THIN SAND SEAMS
NO SAND
SANDY, ROOT MATTER, WET
CLAY, WET, RED–BROWN
BLACK, WET
SAND, GRAVELLY
MUDSTONE, WEATHERED
SWMU 1-4
CLAY, SILTY
SAND, MOIST TO SATURATED, CLAYEY
CLAY, SILTY
SWMU 1-38
SANDY CLAY/ (CLAYEY SAND) MOIST TO SATURATED
CLAY, MOIST TO SATURATED, SANDY
CLAY
MUDSTONE
SILT/SILTY CLAY
CLAY SILTY
MUDSTONE

EXPLANATION

GWM-1 — WELL IDENTIFICATION
WELL
WELL SCREEN INTERVAL
STATIC WATER LEVEL MEASURED 11/28/2012, EXCEPT KA–1, WHICH WAS MEASURED 6/12/2007
LITHOLOGIC CONTACTS (DASHED WHERE INFERRED)

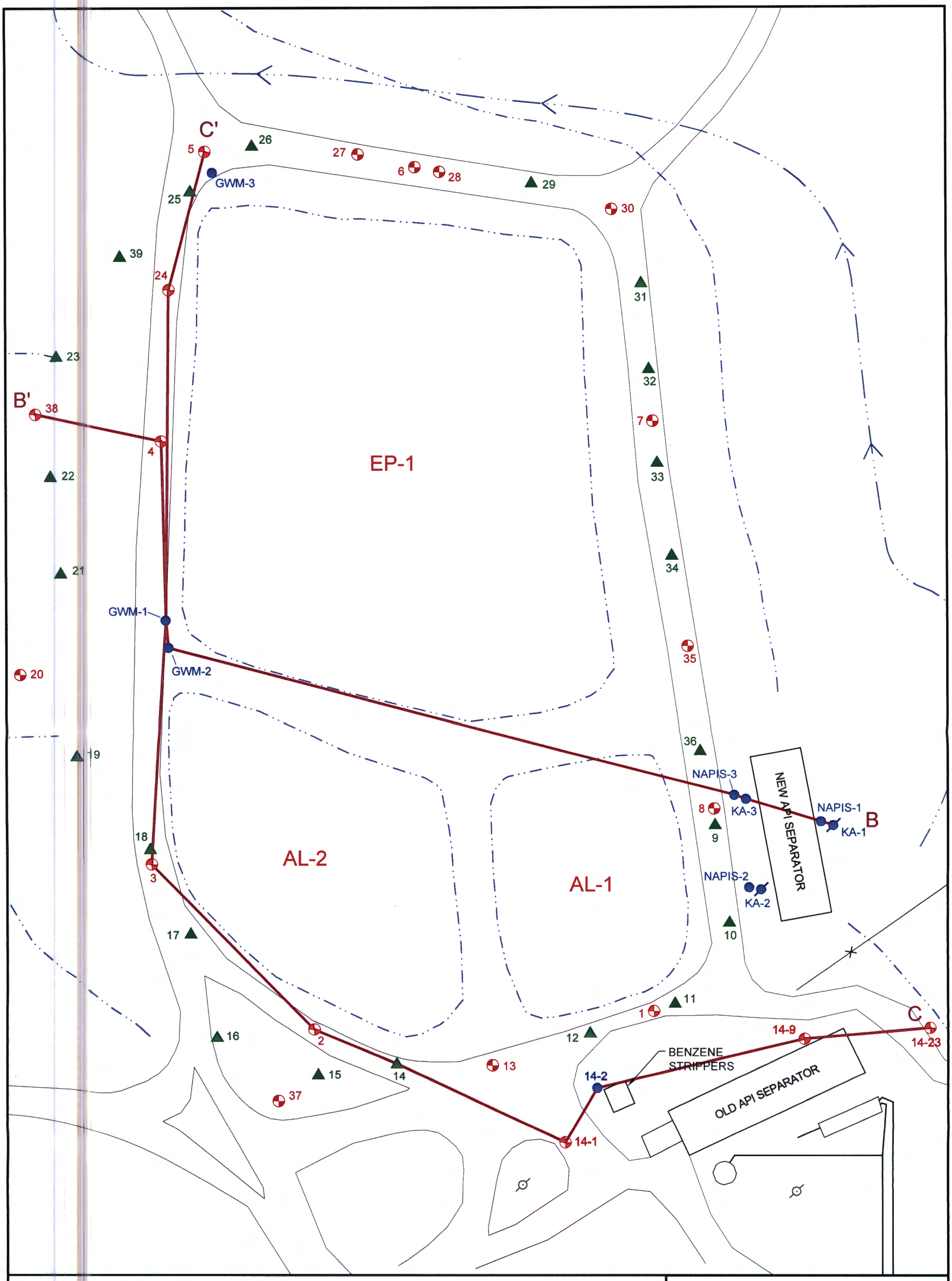
5
0
50
SCALE IN FEET
VERTICAL EXAGGERATION = 10X

Western Refining
GALLUP REFINERY

PROJ. NO.: Western Refining | DATE: 01/31/13 | FILE: WestRef–B161

FIGURE 7
CROSS SECTION B-B'
EAST TO WEST
GALLUP REFINERY

RPS
Cielo Center
1250 S. Capital of Texas Highway
Building 3, Suite 200
Austin, Texas 78746
TBPE No. 1298



LEGEND

- PERIMETER SOIL BORING LOCATION
- HAND AUGER SAMPLE LOCATION
- GWM-1 GROUNDWATER WELL LOCATION
- KA-1 PLUGGED & ABANDONED MONITOR WELL LOCATION
- B — B' LINE OF CROSS SECTION

N

0 50

SCALE IN FEET

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining	DATE:01/31/13	FILE:WestRef-B167

FIGURE 7A
CROSS SECTION LOCATION MAP
GALLUP REFINERY

RPS
Cielo Center
1250 S. Capital of Texas Highway
Building 3, Suite 200
Austin, Texas 78746
TBPE No. 1298

SOUTH
C

NORTH
C'

SWMU 14-23 | SWMU 14-9 | OAPIS-1 SWMU 14-2 | SWMU 14-1 | SWMU 1-2 | SWMU 1-3 | GWM-1 | SWMU 1-24 | SWMU 1-5

ELEVATION (FT MSL)

6925
6915
6905
6895
6885
6875
6865

FILL
SILT/SAND
CLAY, SILTY
CLAY, SANDY
SAND, WET
CLAY
FILL
CLAY
SILTY CLAY
CLAY
FILL
CLAY, SILTY
CLAY
CLAY, SILTY
CLAY, SILTY
CLAY, SILTY
SAND, SATURATED, CLAYEY
CLAY
SAND, SATURATED, CLAYEY
CLAY WITH INTERBEDDED SAND
MUDSTONE/ SANDSTONE
CLAY, SILTY
CLAYEY SAND, SANDY CLAY SATURATED
MUDSTONE
CLAY, WET, RED–BROWN
BLACK
SAND
MUDSTONE
CLAY, SILTY
FILL
SAND, CLAYEY
SAND, CLAYEY
CLAY, SILTY
CLAY
SANDY CLAY, CLAYEY SAND
SANDY CLAY, CLAYEY SAND
CLAY, GRAVELLY
SILT, CLAYEY
CLAYEY SILT SAND, SATURATED
CLAYEY, SAND, SATURATED
MUDSTONE
SILT
SAND, CLAYEY, GRAVEL
?
?
?
?
SANDSTONE/ SILTY SAND
CLAY

PETRIFIED FOREST FORMATION

EXPLANATION

GWM-1 — WELL IDENTIFICATION

WELL

WELL SCREEN INTERVAL

LITHOLOGIC CONTACTS (DASHED WHERE INFERRED)

STATIC WATER LEVEL MEASURED FALL 2012

10
0
100
SCALE IN FEET
VERTICAL EXAGGERATION = 10X

Western Refining
GALLUP REFINERY

PROJ. NO.: Western Refining	DATE: 01/31/13	FILE: WestRef–B162

FIGURE 8
CROSS SECTION C-C'
SOUTH TO NORTH
GALLUP REFINERY

RPS
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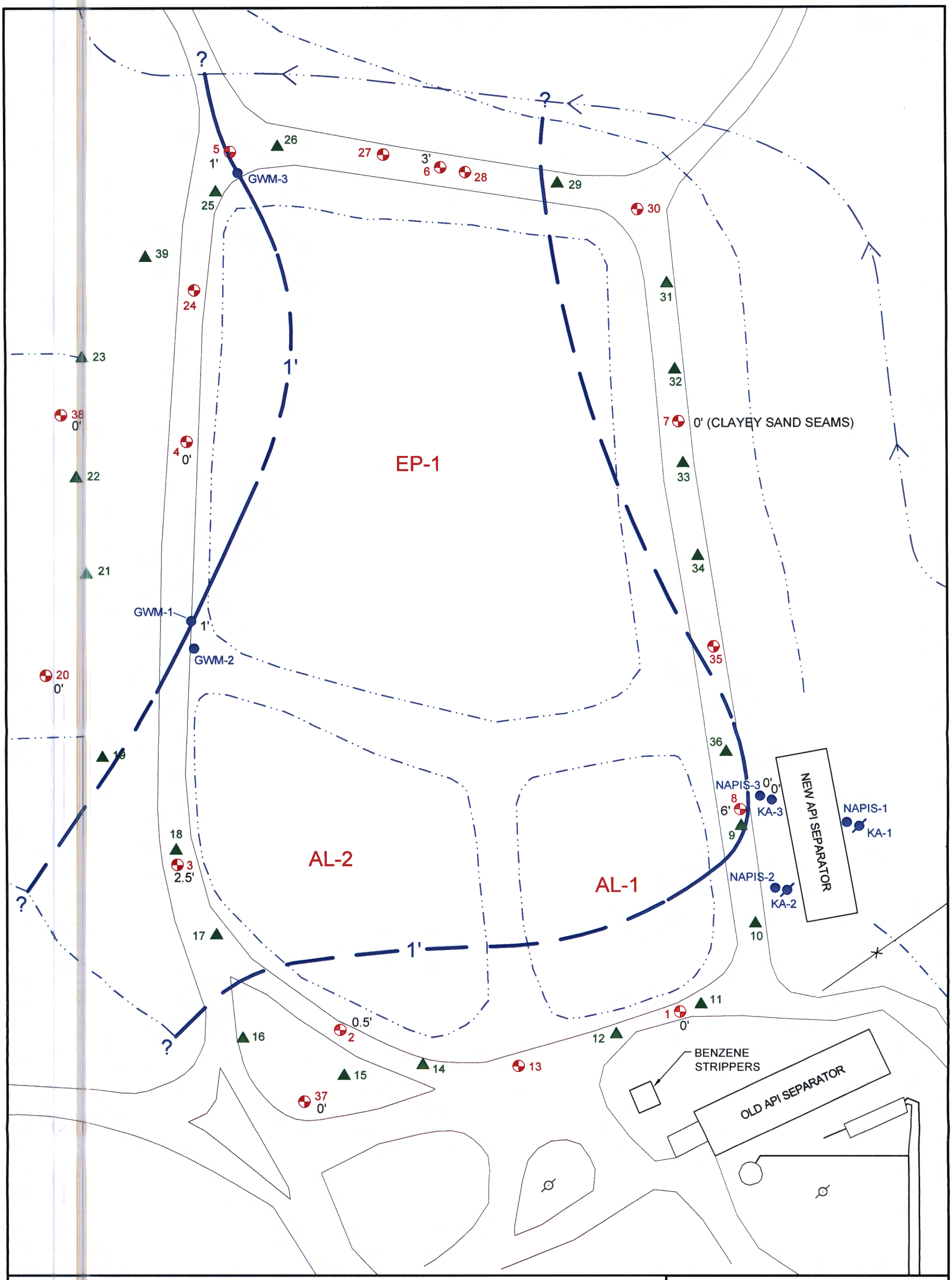
Building 3, Suite 200
Austin, Texas 78746
TBPE No. 1298



LEGEND

0.5'	THICKNESS OF PERMEABLE LAYER (SAND AND CLAYEY SAND / SANDY CLAY) THAT DIRECTLY OVER LIES PETRIFIED FOREST FORMATION BEDROCK (FT)
	PERIMETER SOIL BORING LOCATION
	HAND AUGER SAMPLE LOCATION
GWM-1	GROUNDWATER WELL LOCATION
KA-1	PLUGGED & ABANDONED MONITOR WELL LOCATION

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining	DATE:01/31/13	FILE:WestRef-B163

FIGURE 9
SAND ISOPACH MAP
SWMU No. 1
GALLUP REFINERY

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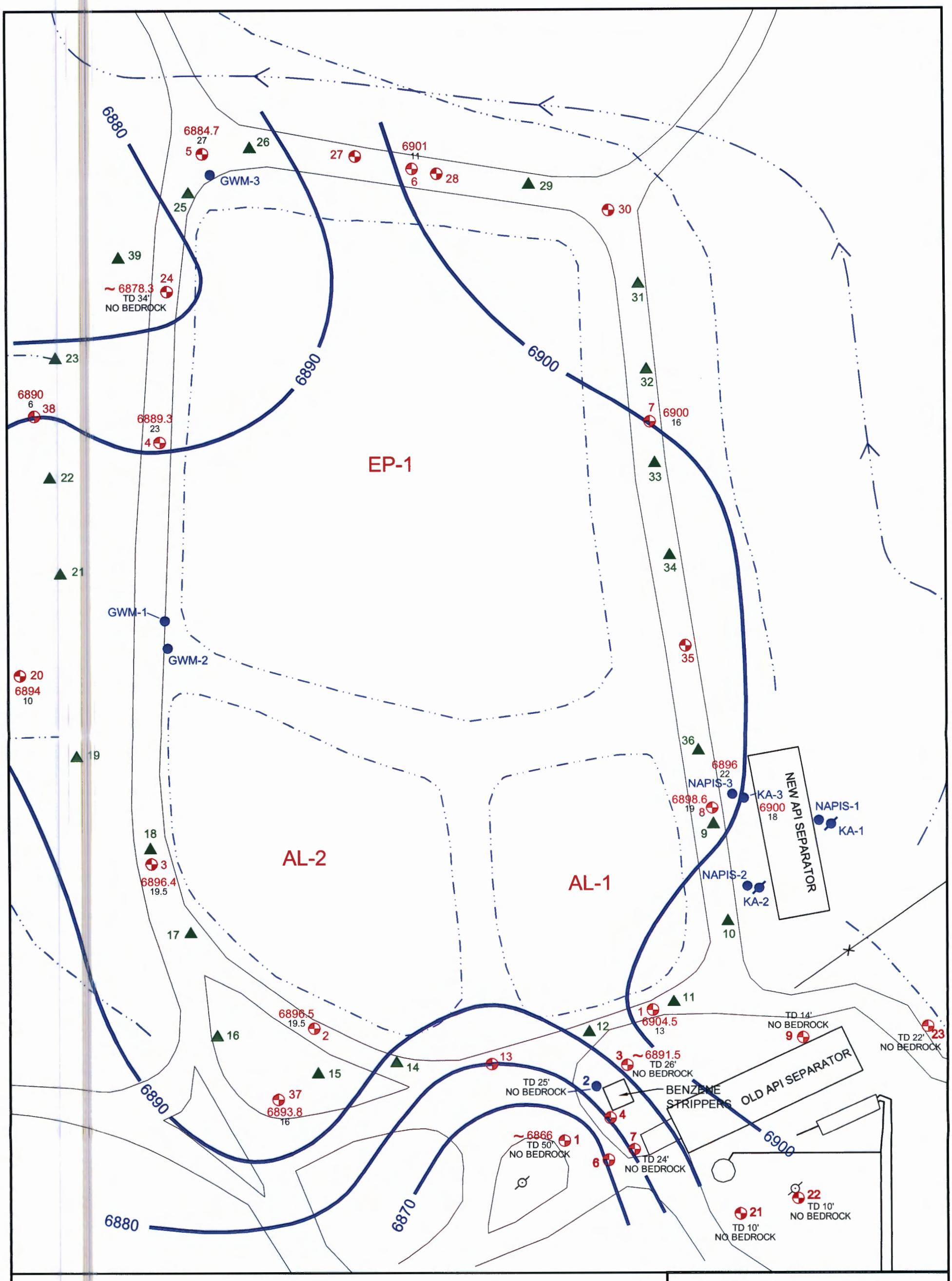

LEGEND

6896.4	ELEVATION ON TOP OF PETRIFIED FOREST FORMATION (MSL)
19.5	DEPTH TO TOP OF PETRIFIED FOREST FORMATION
~	ELEVATION ESTIMATED AS PETRIFIED FOREST FORMATION NOT REACHED IN BORING
TD	TOTAL DEPTH OF BORING
	PERIMETER SOIL BORING LOCATION
	HAND AUGER SAMPLE LOCATION
GWM-1	GROUNDWATER WELL LOCATION
KA-1	PLUGGED & ABANDONED MONITOR WELL LOCATION

N

0 50
SCALE IN FEET

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:01/31/13 | FILE:WestRef-B164

FIGURE 10
PALEOTOPOGRAPHIC MAP
GALLUP REFINERY

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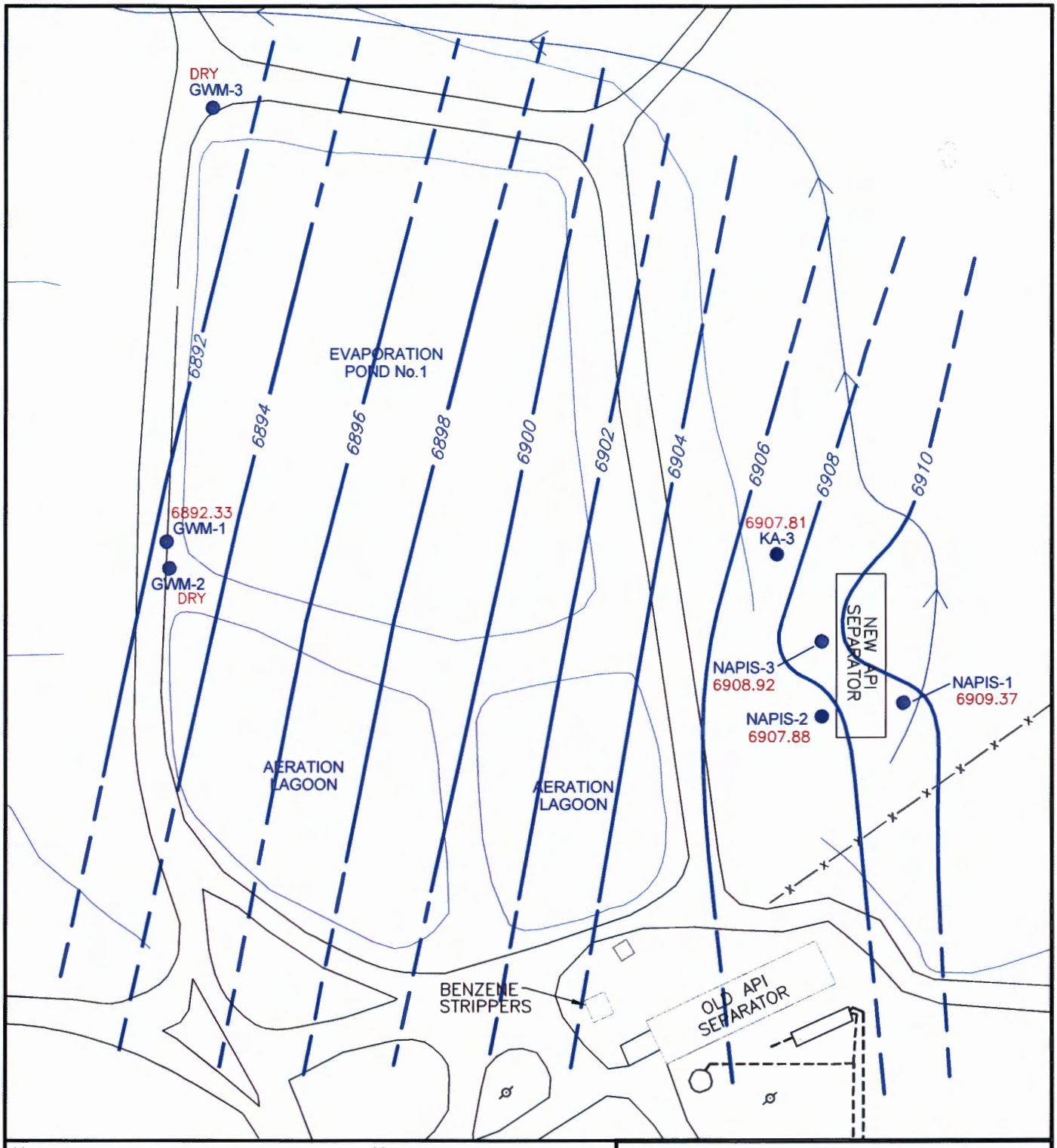


Map Source: Compiled by Photogrammetric Methods from Photography Acquired on March 1, 1998.

GWM-1 ●

6894 — POTENTIOMETRIC SURFACE CONTOUR (ABOVE MSL)

6907.81 POTENTIOMETRIC SURFACE (MEASURED AUGUST 2009, ABOVE MSL)

PIPELINE

N

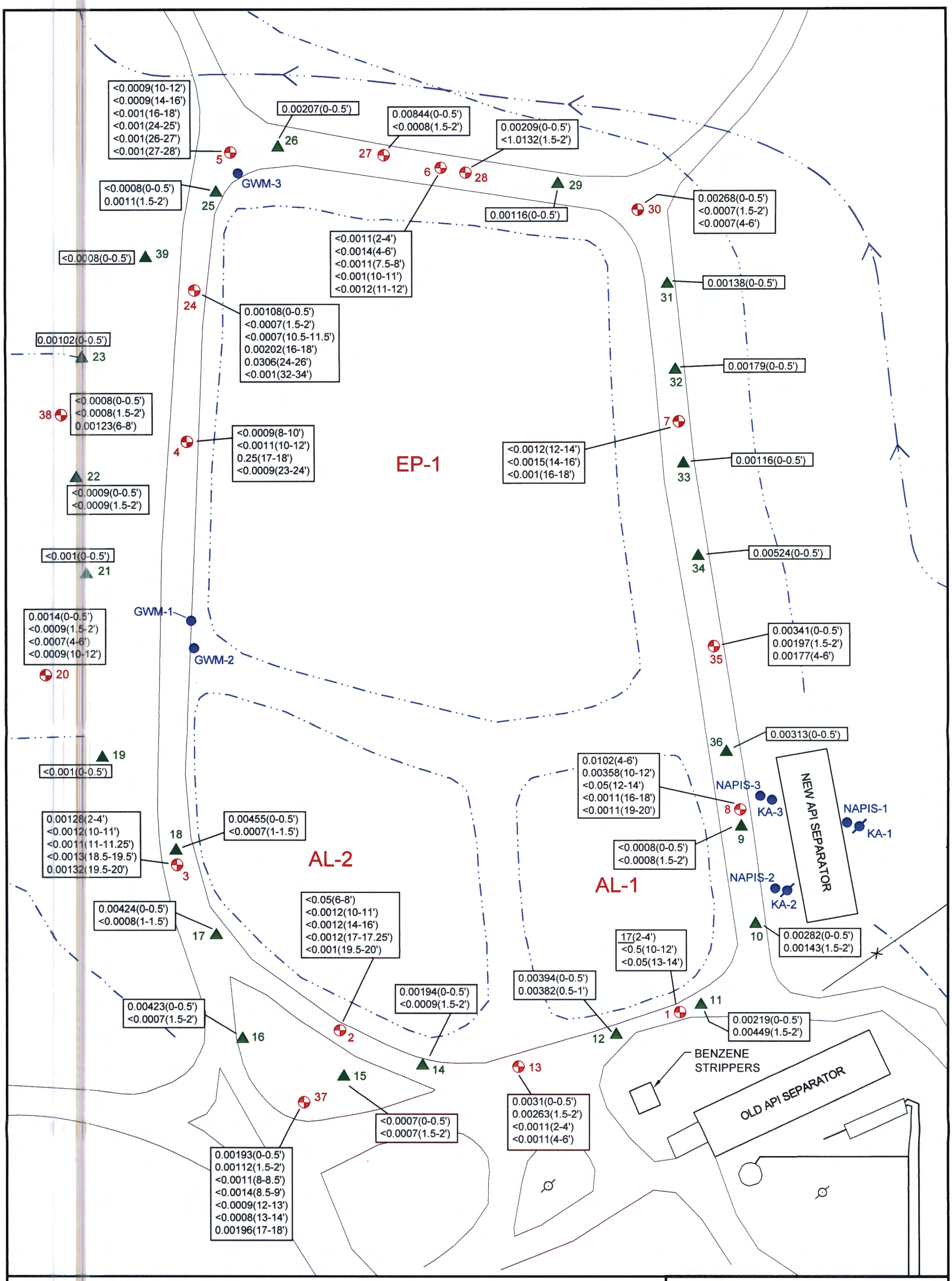
0 80

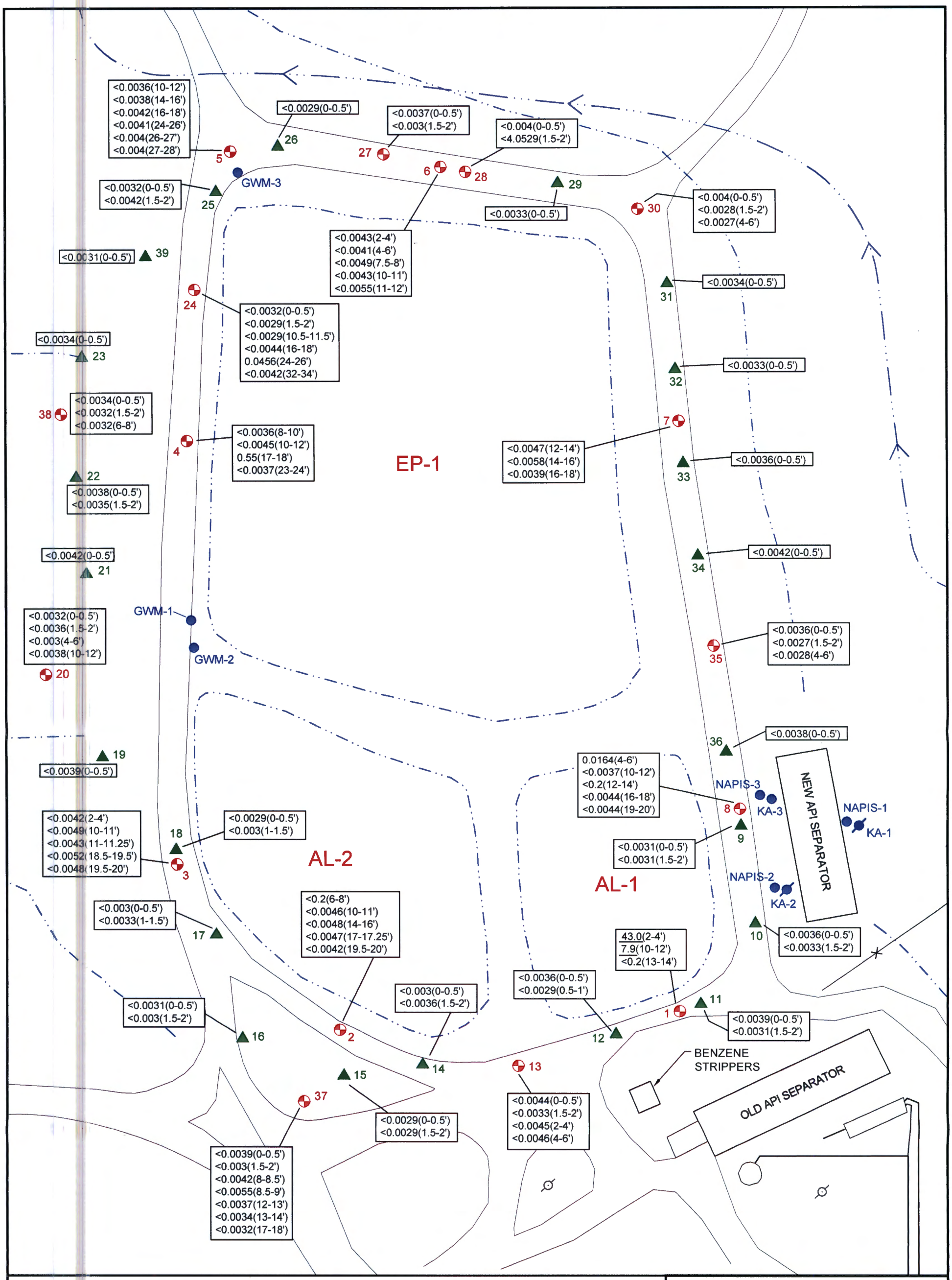
SCALE IN FEET

Western Refining
GALLUP REFINERY

PROJ. NO.: Western Refining	DATE: 09/23/10	FILE: WestRef-A40

FIGURE 11
POTENTIOMETRIC SURFACE MAP
GALLUP REFINERY


<0.0009(10-12')
<0.0009(14-16')
<0.001(16-18')
<0.001(24-25')
<0.001(26-27')
<0.001(27-28')
5
0.00207(0-0.5')
26
0.00844(0-0.5')
<0.0008(1.5-2')
27
0.00209(0-0.5')
<1.0132(1.5-2')
6
28
GWM-3
<0.0008(0-0.5')
0.0011(1.5-2')
25
29
0.00116(0-0.5')
30
0.00268(0-0.5')
<0.0007(1.5-2')
<0.0007(4-6')
<0.0011(2-4')
<0.0014(4-6')
<0.0011(7.5-8')
<0.001(10-11')
<0.0012(11-12')
<0.0008(0-0.5')
39
24
0.00108(0-0.5')
<0.0007(1.5-2')
<0.0007(10.5-11.5')
0.00202(16-18')
0.0306(24-26')
<0.001(32-34')
31
0.00138(0-0.5')
0.00102(0-0.5')
23
32
0.00179(0-0.5')
38
<0.0008(0-0.5')
<0.0008(1.5-2')
0.00123(6-8')
4
<0.0009(8-10')
<0.0011(10-12')
0.25(17-18')
<0.0009(23-24')
EP-1
<0.0012(12-14')
<0.0015(14-16')
<0.001(16-18')
7
33
0.00116(0-0.5')
22
<0.0009(0-0.5')
<0.0009(1.5-2')
34
0.00524(0-0.5')
<0.001(0-0.5')
21
GWM-1
GWM-2
0.0014(0-0.5')
<0.0009(1.5-2')
<0.0007(4-6')
<0.0009(10-12')
20
35
0.00341(0-0.5')
0.00197(1.5-2')
0.00177(4-6')
36
0.00313(0-0.5')
19
<0.001(0-0.5')
0.0102(4-6')
0.00358(10-12')
<0.05(12-14')
<0.0011(16-18')
<0.0011(19-20')
NAPIS-3
KA-3
8
NEW API SEPARATOR
NAPIS-1
KA-1
9
<0.0008(0-0.5')
<0.0008(1.5-2')
0.00128(2-4')
<0.0012(10-11')
<0.0011(11-11.25')
<0.0013(18.5-19.5')
0.00132(19.5-20')
18
0.00455(0-0.5')
<0.0007(1-1.5')
3
AL-2
AL-1
NAPIS-2
KA-2
10
0.00282(0-0.5')
0.00143(1.5-2')
0.00424(0-0.5')
<0.0008(1-1.5')
17
<0.05(6-8')
<0.0012(10-11')
<0.0012(14-16')
<0.0012(17-17.25')
<0.001(19.5-20')
17(2-4')
<0.5(10-12')
<0.05(13-14')
0.00394(0-0.5')
0.00382(0.5-1')
0.00423(0-0.5')
<0.0007(1.5-2')
16
0.00194(0-0.5')
<0.0009(1.5-2')
2
1
11
12
0.00219(0-0.5')
0.00449(1.5-2')
BENZENE
STRIPPERS
OLD API SEPARATOR
14
15
37
13
<0.0007(0-0.5')
<0.0007(1.5-2')
0.0031(0-0.5')
0.00263(1.5-2')
<0.0011(2-4')
<0.0011(4-6')
0.00193(0-0.5')
0.00112(1.5-2')
<0.0011(8-8.5')
<0.0014(8.5-9')
<0.0009(12-13')
<0.0008(13-14')
0.00196(17-18')
N
0
50
SCALE IN FEET
LEGEND
PERIMETER SOIL BORING LOCATION
HAND AUGER SAMPLE LOCATION
GWM-1 GROUNDWATER WELL LOCATION
KA-1 PLUGGED & ABANDONED MONITOR WELL LOCATION
0.0031(0-0.5') 1,2,4- TRIMETHYLBENZENE CONCENTRATION, mg/kg (SAMPLE DEPTH-FT)
9.68 UNDERLINED CONCENTRATION VALUE EXCEEDS SCREENING LEVEL
Western Refining
GALLUP REFINERY
PROJ. NO.:Western Refining
DATE:01/24/13
FILE:WestRef-B155
FIGURE 12
1,2,4- TRIMETHYLBENZENE
SOIL CONCENTRATIONS - SWMU No. 1
GALLUP REFINERY
RPS
Cielo Center
1250 S. Capital of Texas Highway
Building 3, Suite 200
Austin, Texas 78746
TBPE No. 1298



Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:01/24/13 | FILE:WestRef-B157

FIGURE 13
1-METHYLNAPHTHALENE SOIL CONCENTRATIONS - SWMU No. 1 GALLUP REFINERY

RPS
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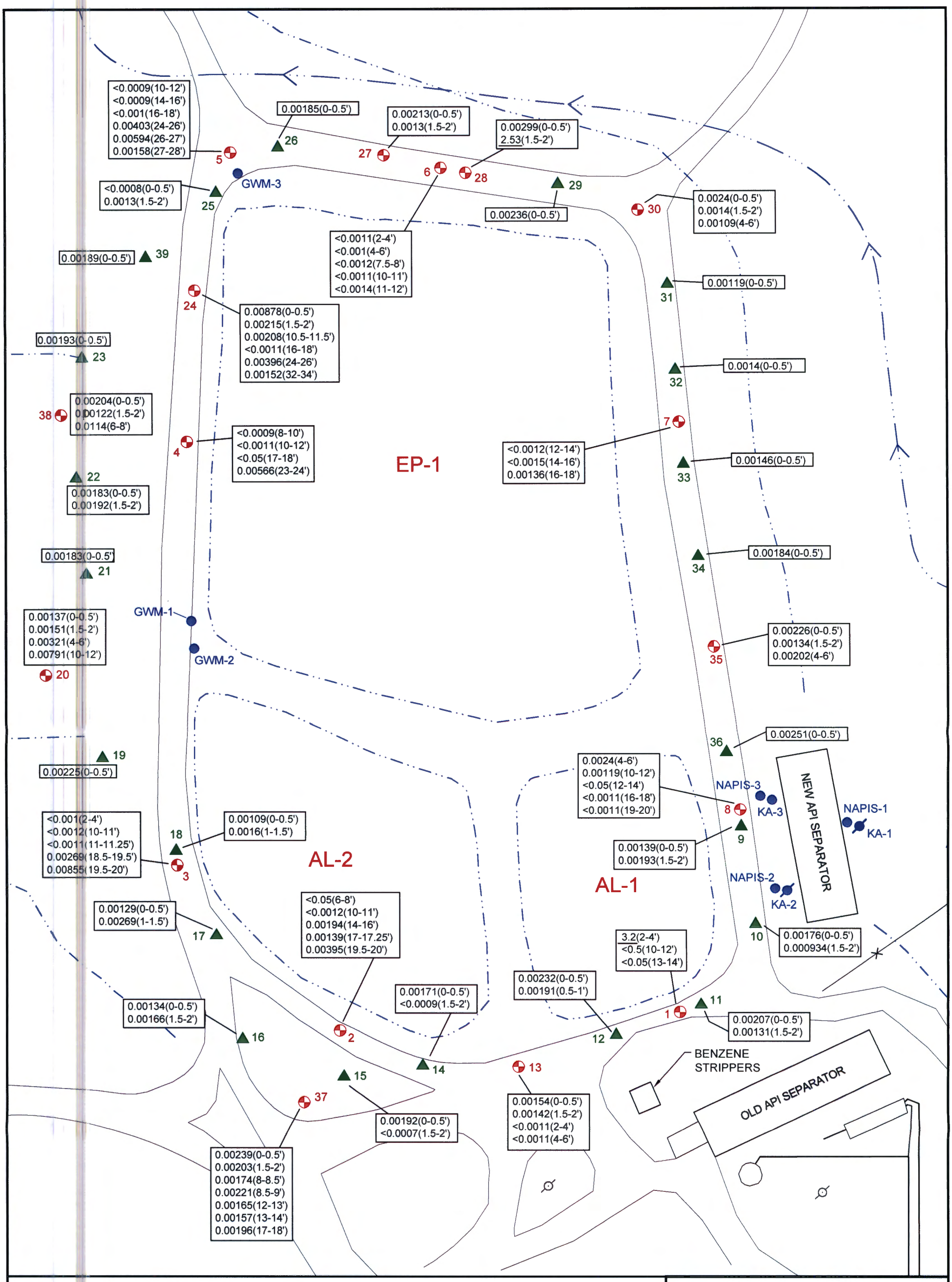
Austin, Texas 78746
TBPE No. 1298



LEGEND

- PERIMETER SOIL BORING LOCATION
- HAND AUGER SAMPLE LOCATION
- GWM-1 GROUNDWATER WELL LOCATION
- KA-1 PLUGGED & ABANDONED MONITOR WELL LOCATION
- 0.00154(0-0.5') BENZENE CONCENTRATION, mg/kg (SAMPLE DEPTH-FT)
- 0.796 UNDERLINED CONCENTRATION VALUE EXCEEDS SCREENING LEVEL

N

0 50

SCALE IN FEET

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:01/24/13 | FILE:WestRef-B156

FIGURE 14
BENZENE
SOIL CONCENTRATIONS - SWMU No. 1
GALLUP REFINERY

RPS
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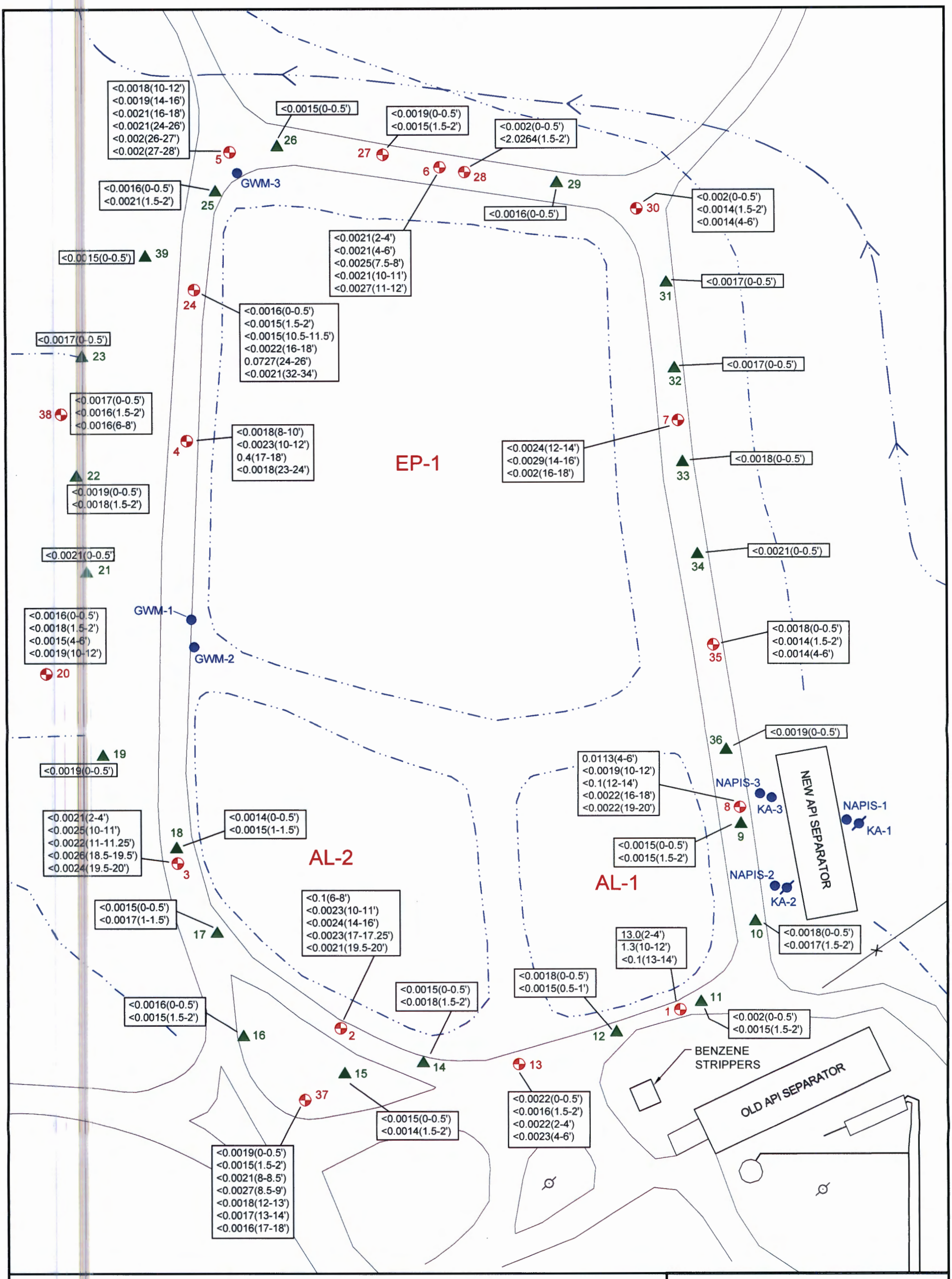
TBPE No. 1298



Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:01/24/13 | FILE:WestRef-B158

FIGURE 15
NAPHTHALENE
SOIL CONCENTRATIONS - SWMU No. 1
GALLUP REFINERY

RPS
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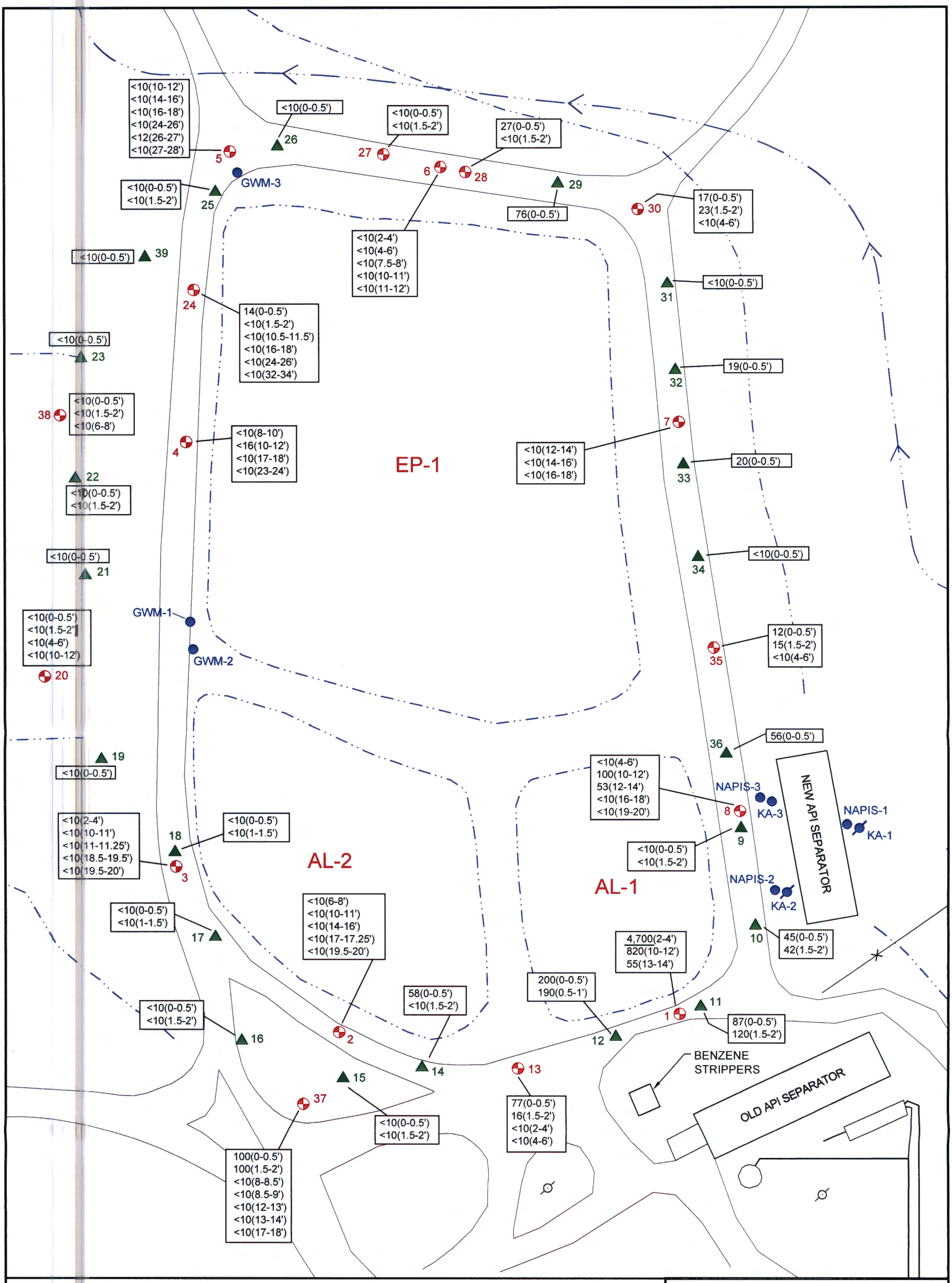
TBPE No. 1298


<10(10-12')
<10(14-16')
<10(16-18')
<10(24-26')
<12(26-27')
<10(27-28')
5
<10(0-0.5')
26
<10(0-0.5')
<10(1.5-2')
27
27(0-0.5')
<10(1.5-2')
28
6
GWM-3
<10(0-0.5')
<10(1.5-2')
25
29
76(0-0.5')
30
17(0-0.5')
23(1.5-2')
<10(4-6')
<10(2-4')
<10(4-6')
<10(7.5-8')
<10(10-11')
<10(11-12')
<10(0-0.5')
39
24
14(0-0.5')
<10(1.5-2')
<10(10.5-11.5')
<10(16-18')
<10(24-26')
<10(32-34')
31
<10(0-0.5')
<10(0-0.5')
23
32
19(0-0.5')
38
<10(0-0.5')
<10(1.5-2')
<10(6-8')
4
<10(8-10')
<16(10-12')
<10(17-18')
<10(23-24')
EP-1
7
<10(12-14')
<10(14-16')
<10(16-18')
33
20(0-0.5')
22
<10(0-0.5')
<10(1.5-2')
<10(0-0.5')
21
34
<10(0-0.5')
GWM-1
GWM-2
<10(0-0.5')
<10(1.5-2')
<10(4-6')
<10(10-12')
20
35
12(0-0.5')
15(1.5-2')
<10(4-6')
36
56(0-0.5')
19
<10(0-0.5')
<10(4-6')
100(10-12')
53(12-14')
<10(16-18')
<10(19-20')
NAPIS-3
KA-3
8
NEW API SEPARATOR
NAPIS-1
KA-1
<10(2-4')
<10(10-11')
<10(11-11.25')
<10(18.5-19.5')
<10(19.5-20')
18
<10(0-0.5')
<10(1-1.5')
3
AL-2
AL-1
9
<10(0-0.5')
<10(1.5-2')
NAPIS-2
KA-2
<10(0-0.5')
<10(1-1.5')
17
<10(6-8')
<10(10-11')
<10(14-16')
<10(17-17.25')
<10(19.5-20')
4,700(2-4')
820(10-12')
55(13-14')
10
45(0-0.5')
42(1.5-2')
200(0-0.5')
190(0.5-1')
58(0-0.5')
<10(1.5-2')
<10(0-0.5')
<10(1.5-2')
16
2
14
1
11
12
87(0-0.5')
120(1.5-2')
BENZENE
STRIPPERS
OLD API SEPARATOR
13
77(0-0.5')
16(1.5-2')
<10(2-4')
<10(4-6')
15
37
<10(0-0.5')
<10(1.5-2')
100(0-0.5')
100(1.5-2')
<10(8-8.5')
<10(8.5-9')
<10(12-13')
<10(13-14')
<10(17-18')
N
0
50
SCALE IN FEET
LEGEND
PERIMETER SOIL BORING LOCATION
HAND AUGER SAMPLE LOCATION
GWM-1
GROUNDWATER WELL LOCATION
KA-1
PLUGGED & ABANDONED MONITOR WELL LOCATION
77(0-0.5')
DIESEL RANGE ORGANICS CONCENTRATION, mg/kg
(SAMPLE DEPTH-FT)
1,000
UNDERLINED CONCENTRATION VALUE
EXCEEDS SCREENING LEVEL
Western Refining
GALLUP REFINERY
PROJ. NO.:Western Refining
DATE:01/24/13
FILE:WestRef-B159
FIGURE 16
DIESEL RANGE ORGANICS
SOIL CONCENTRATIONS - SWMU No. 1
GALLUP REFINERY
RPS
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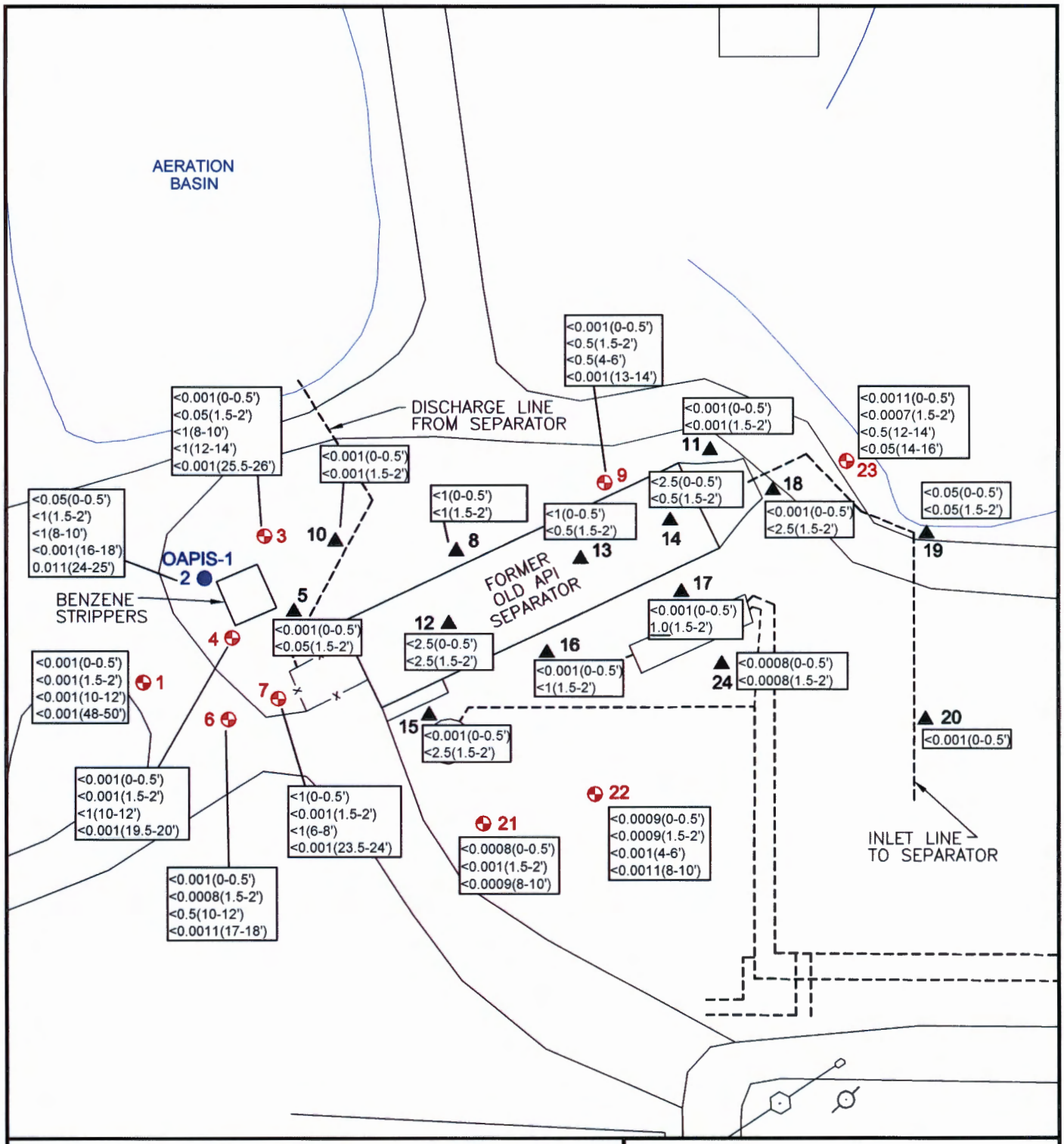
1250 S. Capital of Texas Highway
Building 3, Suite 200
Austin, Texas 78746
TBPE No. 1298



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

LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- PIPELINE
- <0.001(0-0.5') 1,1,2-TRICHLOROETHANE CONCENTRATION, mg/kg (SAMPLE DEPTH-FT)
- 0.0514 UNDERLINED CONCENTRATION VALUE EXCEEDS SCREENING LEVEL

N

0 40
SCALE IN FEET

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:01/31/13 | FILE:WestRef-A164

FIGURE 17
1,1,2-TRICHLOROETHANE
SOIL CONCENTRATIONS - SWMU No. 14
GALLUP REFINERY

RPS
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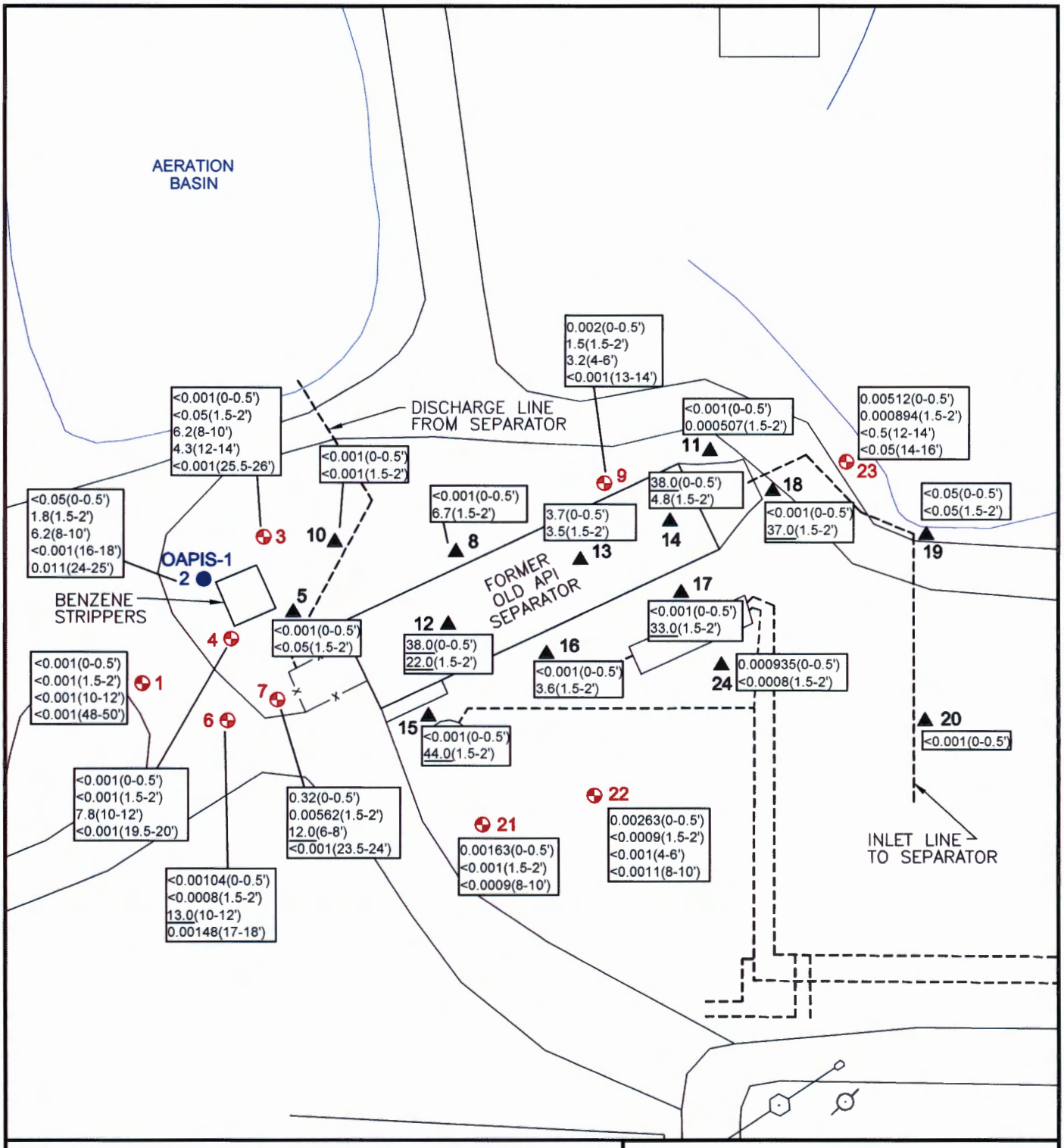
Building 3, Suite 200
Austin, Texas 78746
TBPE No. 1298



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

LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- PIPELINE
- 0.00163(0-0.5') 1,2,4-TRIMETHYLBENZENE CONCENTRATION, mg/kg (SAMPLE DEPTH-FT)
- 9.68 UNDERLINED CONCENTRATION VALUE EXCEEDS SCREENING LEVEL

0 40
SCALE IN FEET

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:01/29/13 | FILE:WestRef-A154

FIGURE 18
1,2,4-TRIMETHYLBENZENE SOIL CONCENTRATIONS - SWMU No. 14 GALLUP REFINERY

RPS
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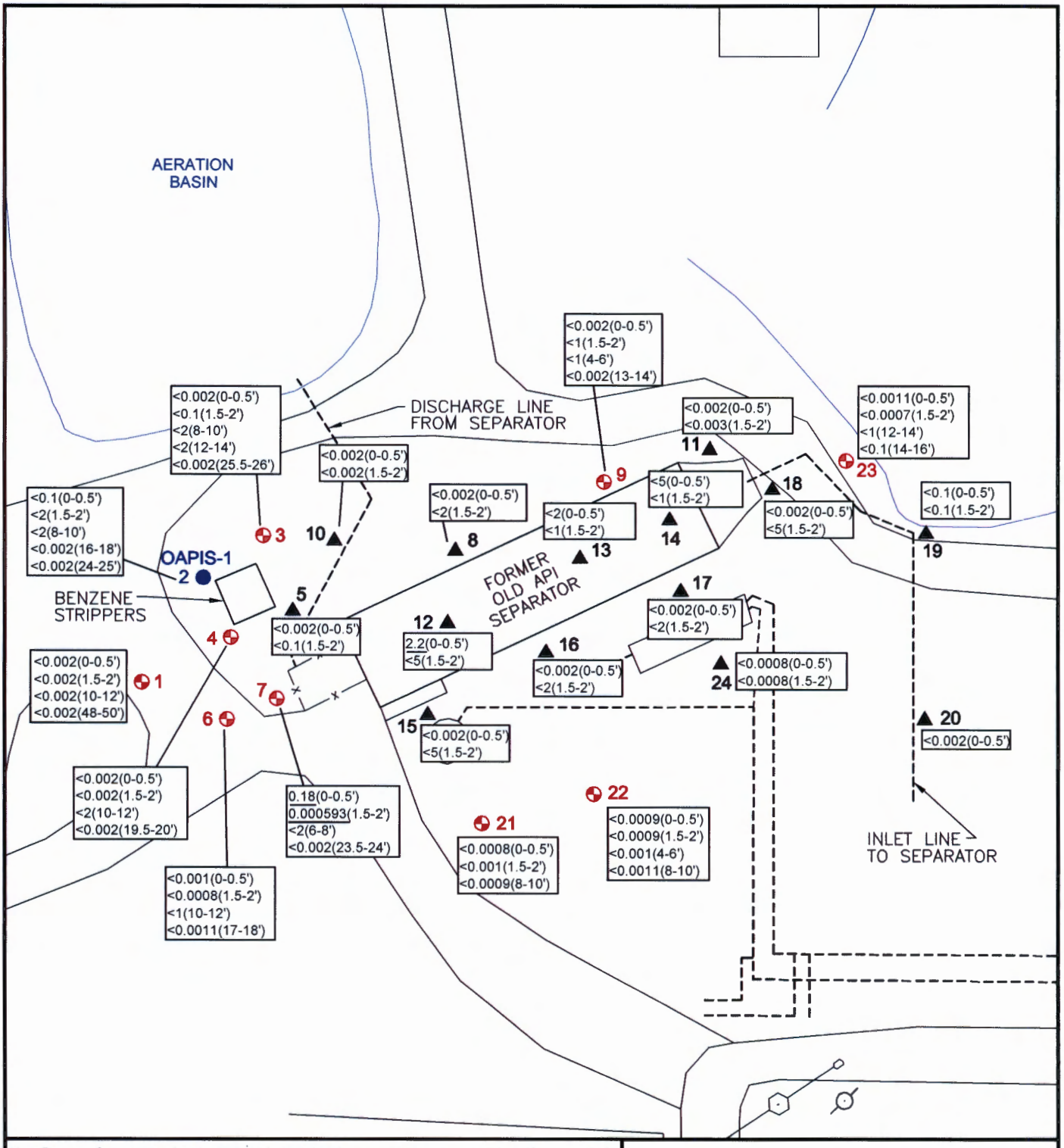
Austin, Texas 78746
TBPE No. 1298



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

LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- PIPELINE
- <0.001(0-0.5') 1,2-DIBROMO-3-CHLOROPROPANE CONCENTRATION, mg/kg (SAMPLE DEPTH-FT)
- 0.000507 UNDERLINED CONCENTRATION VALUE EXCEEDS SCREENING LEVEL

N

0 40

SCALE IN FEET

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:01/31/13 | FILE:WestRef-A165

FIGURE 19
1,2-DIBROMO-3-CHLOROPROPANE
SOIL CONCENTRATIONS - SWMU No. 14
GALLUP REFINERY

RPS
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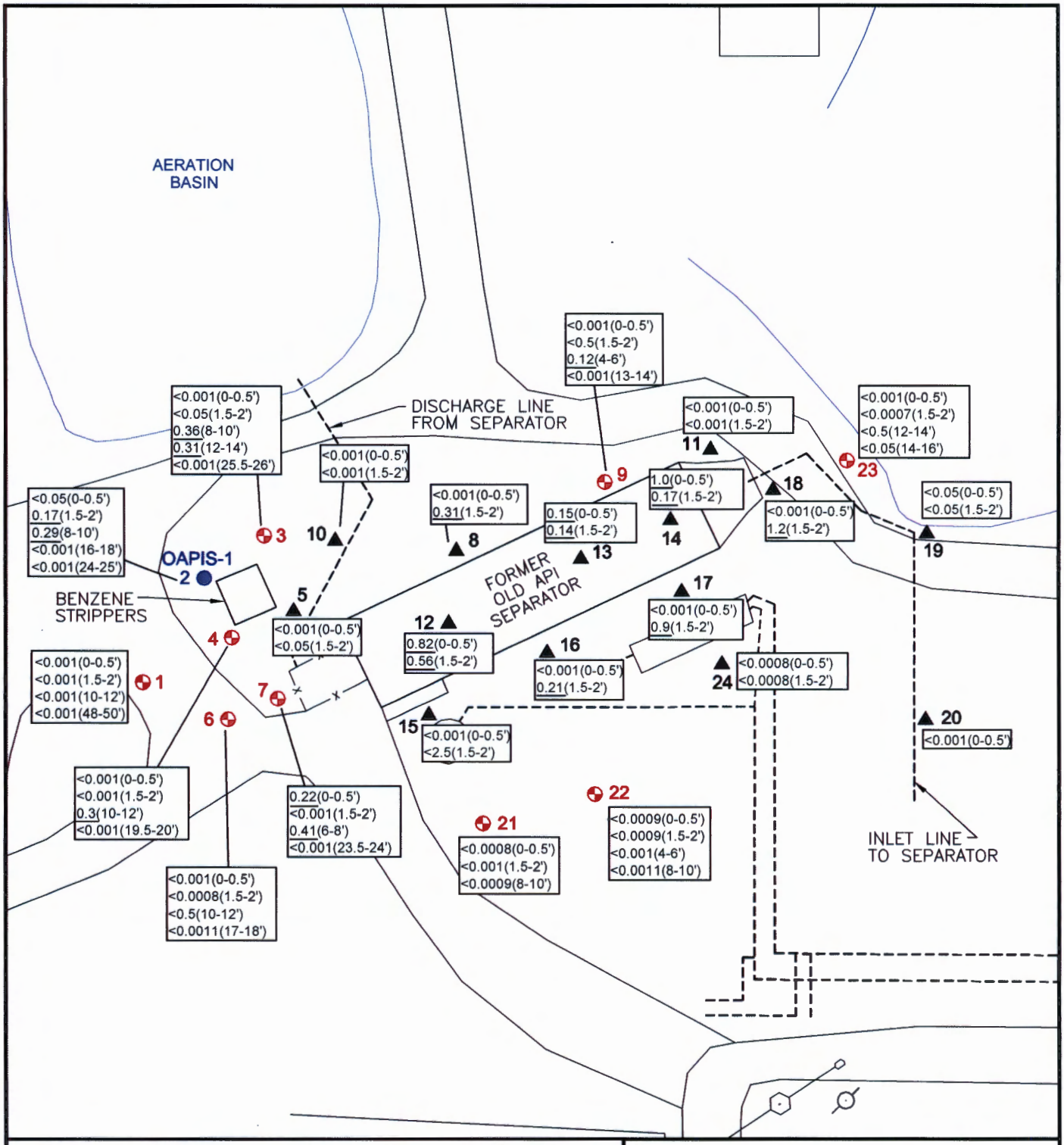
Building 3, Suite 200
Austin, Texas 78746
TBPE No. 1298



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

LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- PIPELINE
- <0.0008(0-0.5') 1,2-DIBROMOETHANE CONCENTRATION, mg/kg (SAMPLE DEPTH-FT)
- 0.0071 UNDERLINED CONCENTRATION VALUE EXCEEDS SCREENING LEVEL

N

0 40
SCALE IN FEET

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:01/29/13 | FILE:WestRef-A155

FIGURE 20
1,2-DIBROMOETHANE
SOIL CONCENTRATIONS - SWMU No. 14
GALLUP REFINERY

RPS
Cielo Center
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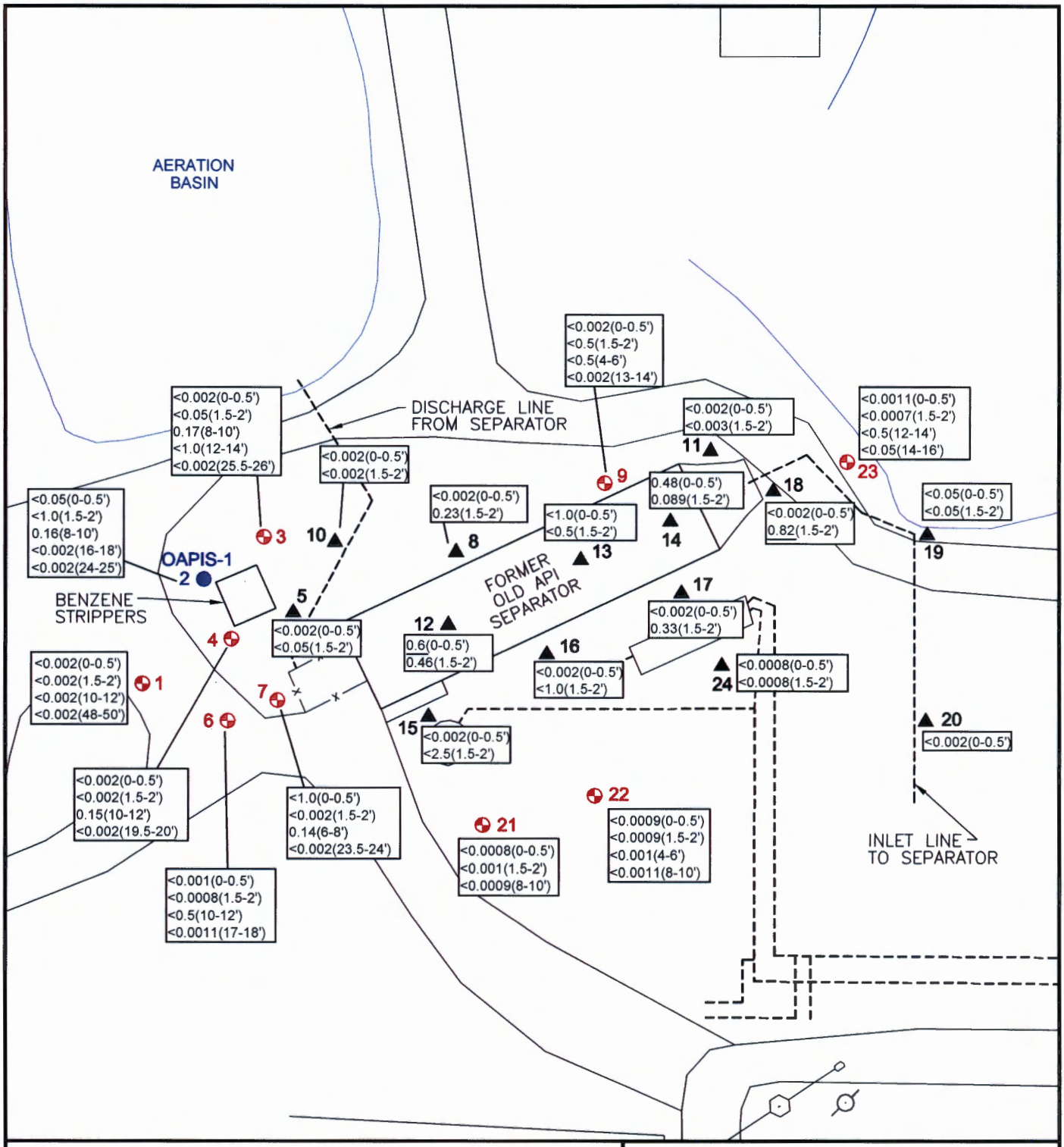
Building 3, Suite 200
Austin, Texas 78746
TBPE No. 1298



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

LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- PIPELINE
- <0.0008(0-0.5') 1,2-DICHLOROPROPANE CONCENTRATION, mg/kg (SAMPLE DEPTH-FT)
- 0.494 UNDERLINED CONCENTRATION VALUE EXCEEDS SCREENING LEVEL

N

0 40

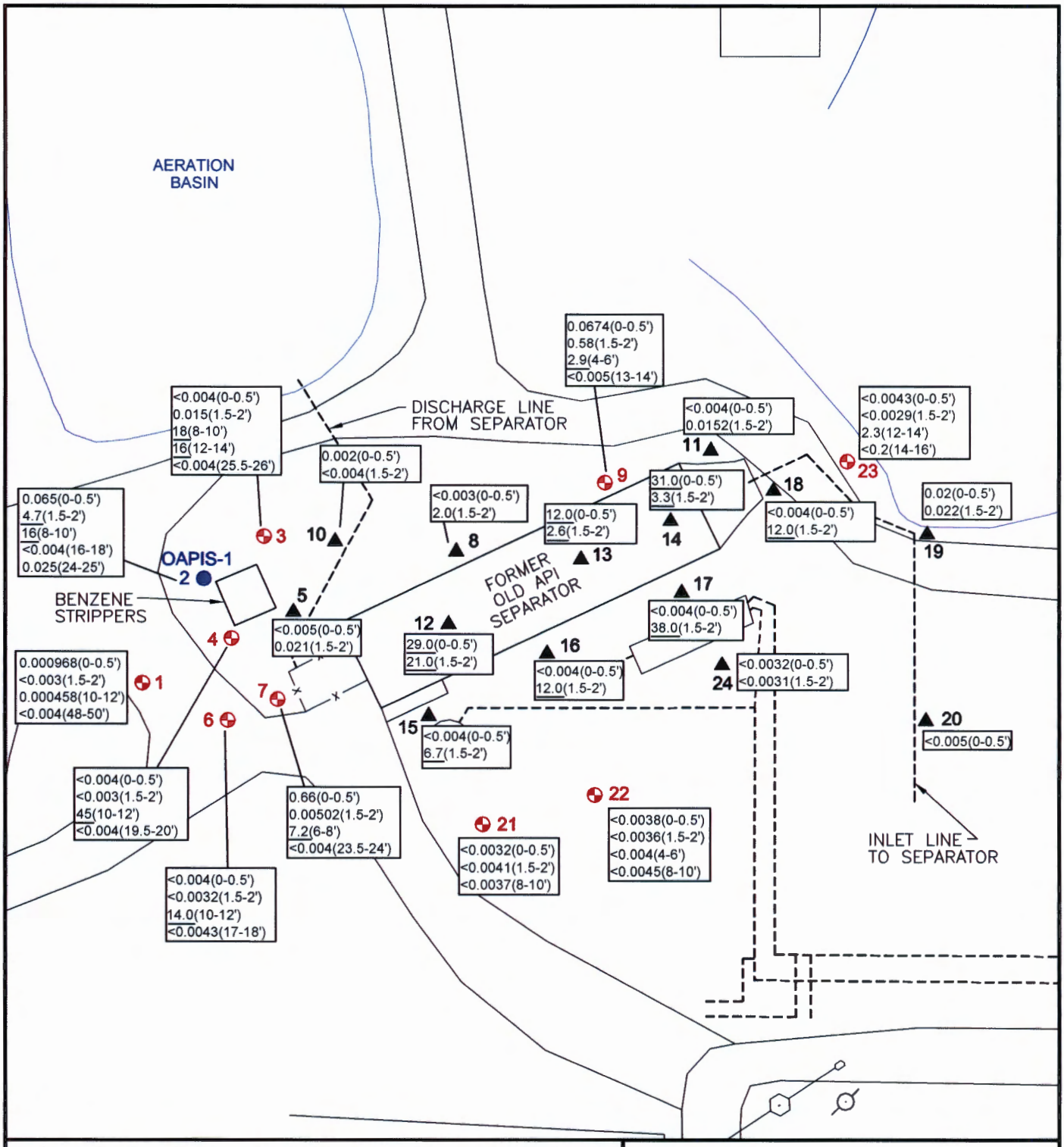
SCALE IN FEET

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:01/29/13 | FILE:WestRef-A156

FIGURE 21
1,2-DICHLOROPROPANE
SOIL CONCENTRATIONS - SWMU No. 14
GALLUP REFINERY

RPS
Cielo Center
1250 S. Capital of Texas Highway
Building 3, Suite 200
Austin, Texas 78746
TBPE No. 1298



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

LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- PIPELINE
- <0.0038(0-0.5') 1-METHYLNAPHTHALENE CONCENTRATION, mg/kg (SAMPLE DEPTH-FT)
- 2.35 UNDERLINED CONCENTRATION VALUE EXCEEDS SCREENING LEVEL

N

0 40
SCALE IN FEET

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:01/29/13 | FILE:WestRef-A160

FIGURE 22
1-METHYLNAPHTHALENE
SOIL CONCENTRATIONS - SWMU No. 14
GALLUP REFINERY

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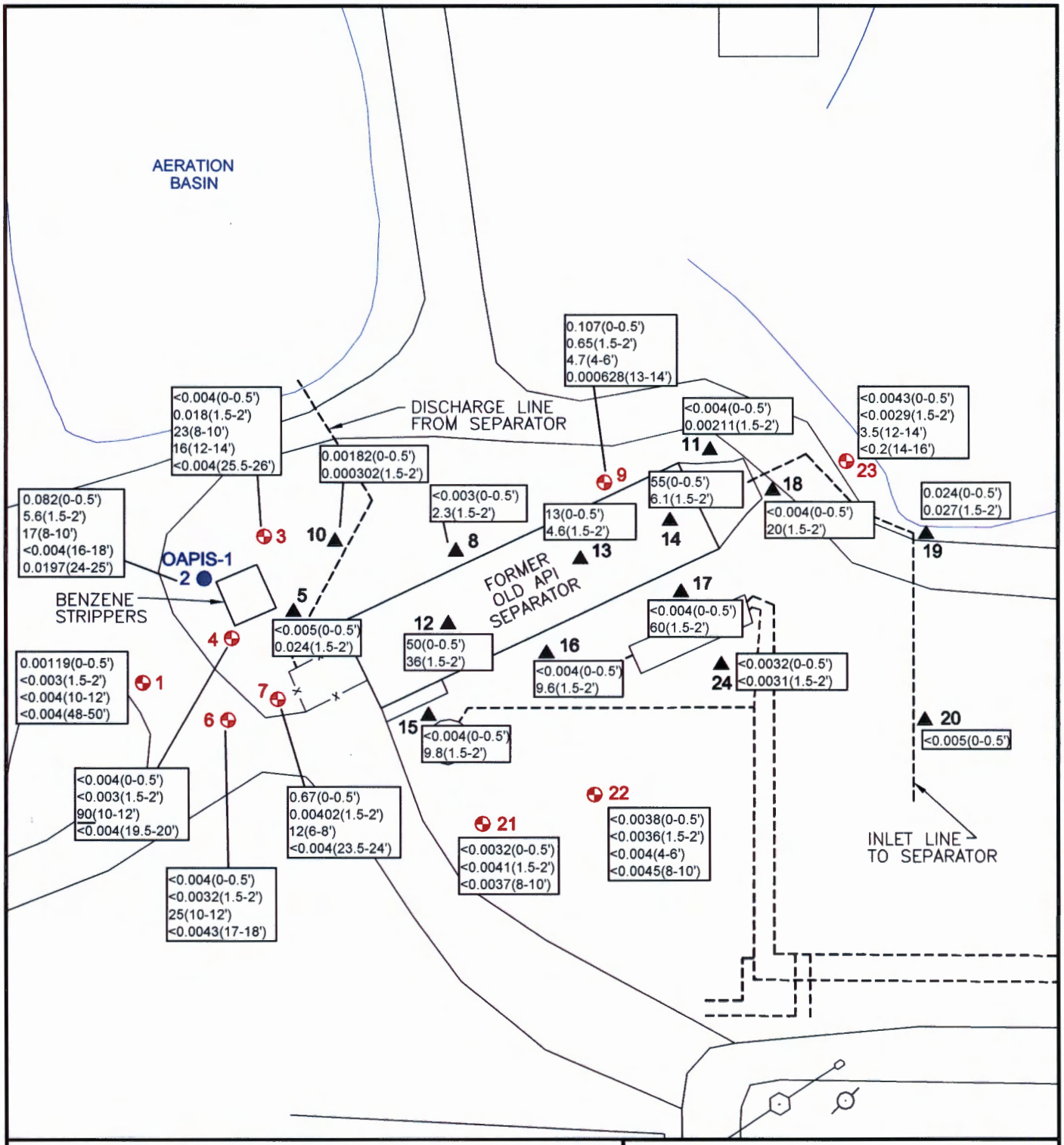

Map Source: Compiled by Photogrammetric Methods from Photography Acquired on March 1, 1998.

LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- PIPELINE
- 0.00119(0-0.5') — 2-METHYLNAPHTHALENE CONCENTRATION, mg/kg (SAMPLE DEPTH-FT)
- 64.5 — UNDERLINED CONCENTRATION VALUE EXCEEDS SCREENING LEVEL

N

0 40

SCALE IN FEET

Western Refining
GALLUP REFINERY

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FIGURE 23
2-METHYLNAPHTHALENE SOIL CONCENTRATIONS - SWMU No. 14 GALLUP REFINERY

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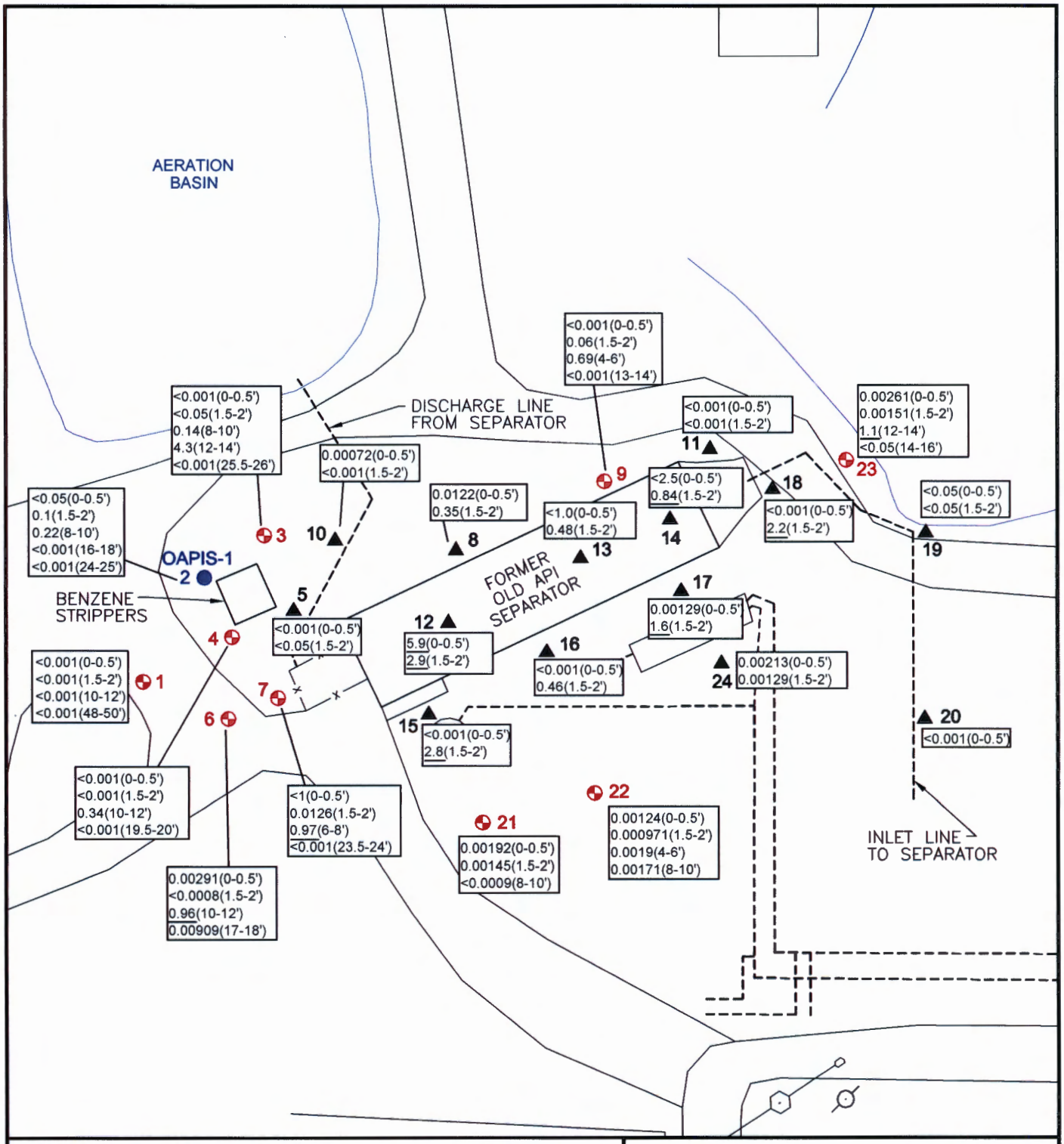

Map Source: Compiled by Photogrammetric Methods from Photography Acquired on March 1, 1998.

LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- PIPELINE
- 0.00124(0-0.5') BENZENE CONCENTRATION, mg/kg (SAMPLE DEPTH-FT)
- 0.796 UNDERLINED CONCENTRATION VALUE EXCEEDS SCREENING LEVEL

N

0 40
SCALE IN FEET

Western Refining
GALLUP REFINERY

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FIGURE 24
BENZENE
SOIL CONCENTRATIONS - SWMU No. 14
GALLUP REFINERY

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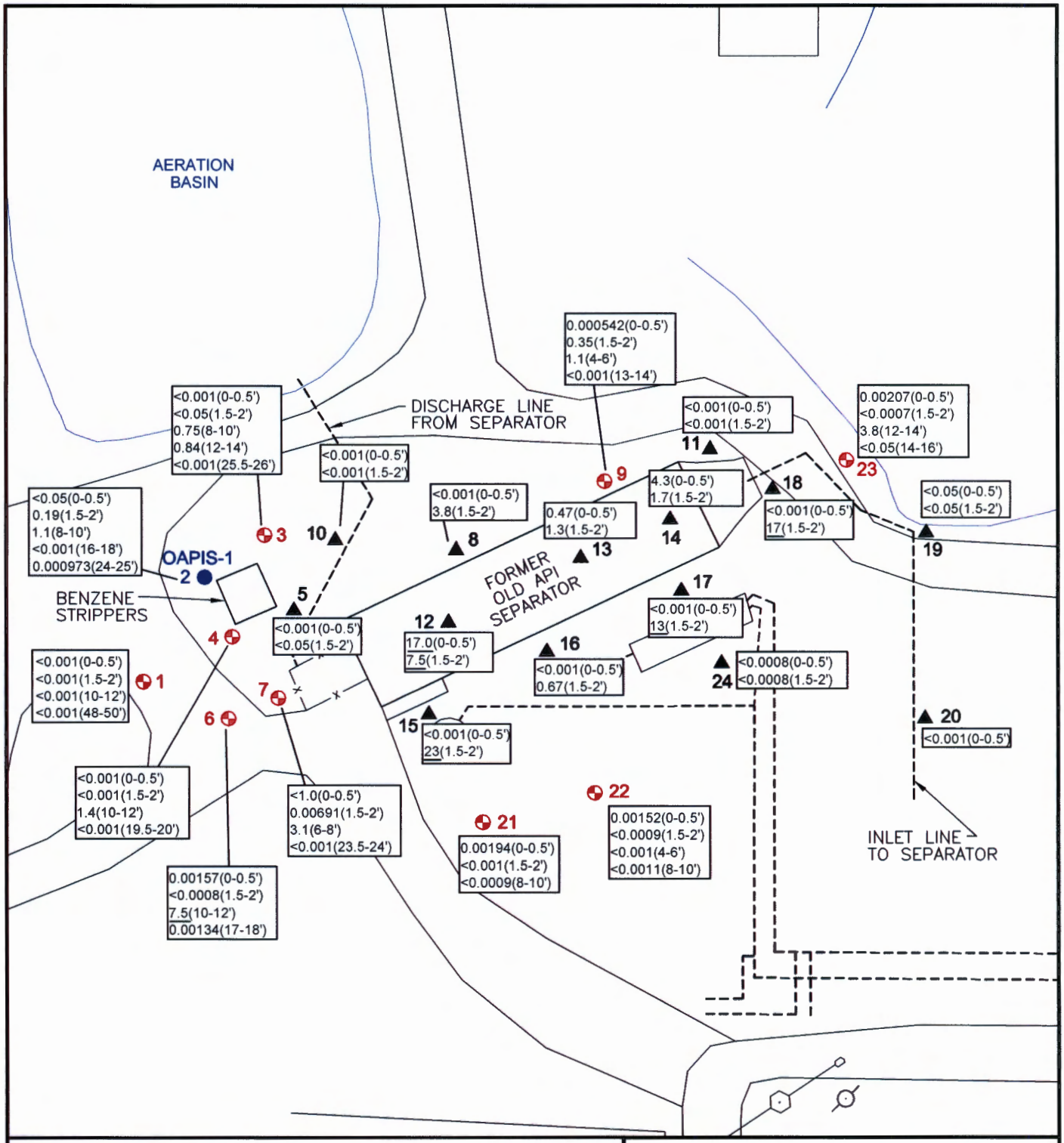

Map Source: Compiled by Photogrammetric Methods from Photography Acquired on March 1, 1998.

LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- PIPELINE
- 0.00152(0-0.5') ETHYLBENZENE CONCENTRATION, mg/kg (SAMPLE DEPTH-FT)
- 5.98 UNDERLINED CONCENTRATION VALUE EXCEEDS SCREENING LEVEL

N

0 40
SCALE IN FEET

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:01/29/13 | FILE:WestRef-A158

FIGURE 25
ETHYLBENZENE
SOIL CONCENTRATIONS - SWMU No. 14
GALLUP REFINERY

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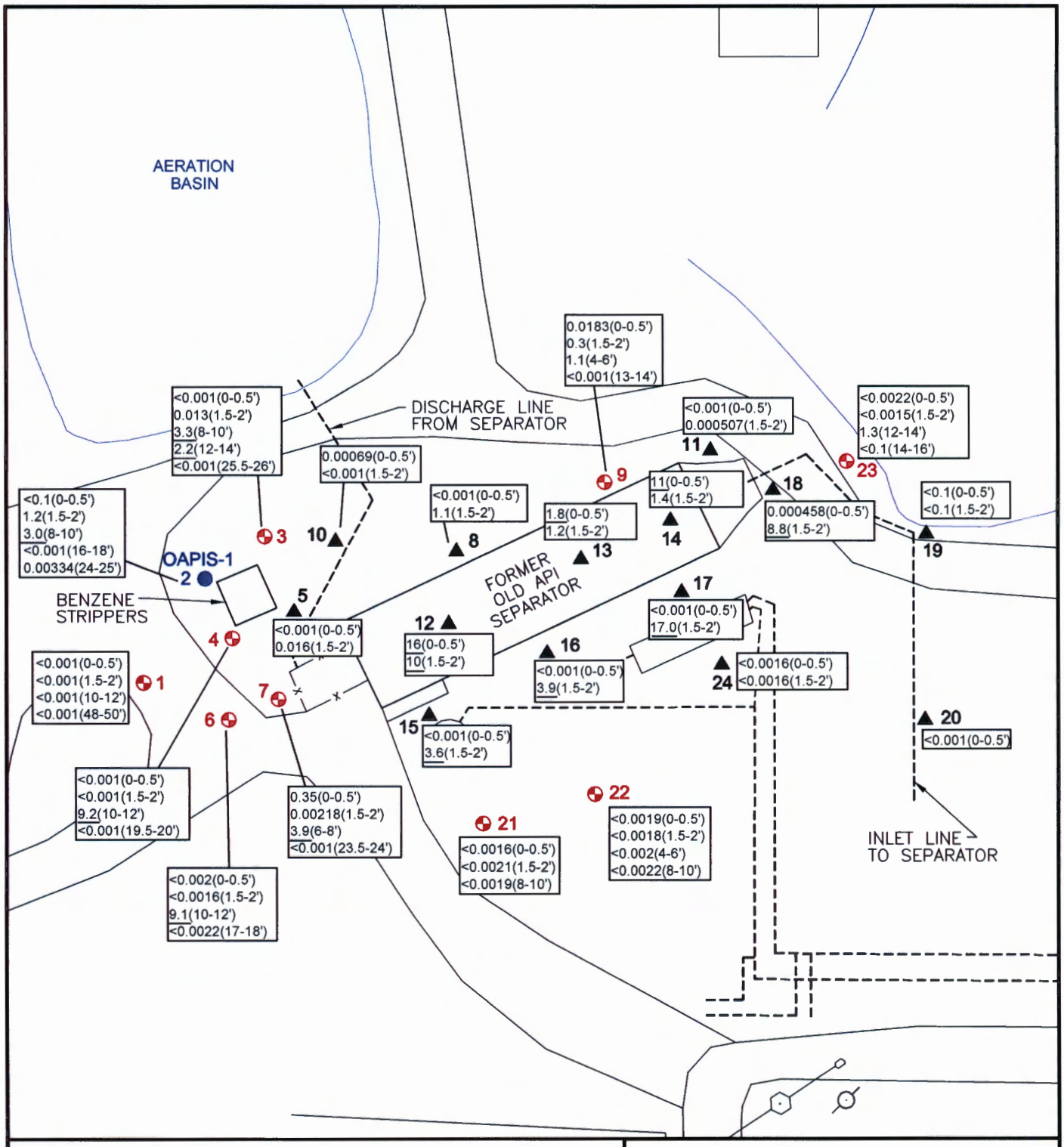

Map Source: Compiled by Photogrammetric Methods from Photography Acquired on March 1, 1998.

LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- PIPELINE
- <0.0019(0-0.5') NAPHTHALENE CONCENTRATION, mg/kg (SAMPLE DEPTH-FT)
- 1.64 UNDERLINED CONCENTRATION VALUE EXCEEDS SCREENING LEVEL

N

0 40

SCALE IN FEET

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:01/29/13 | FILE:WestRef-A159

FIGURE 26
NAPHTHALENE
SOIL CONCENTRATIONS - SWMU No. 14
GALLUP REFINERY

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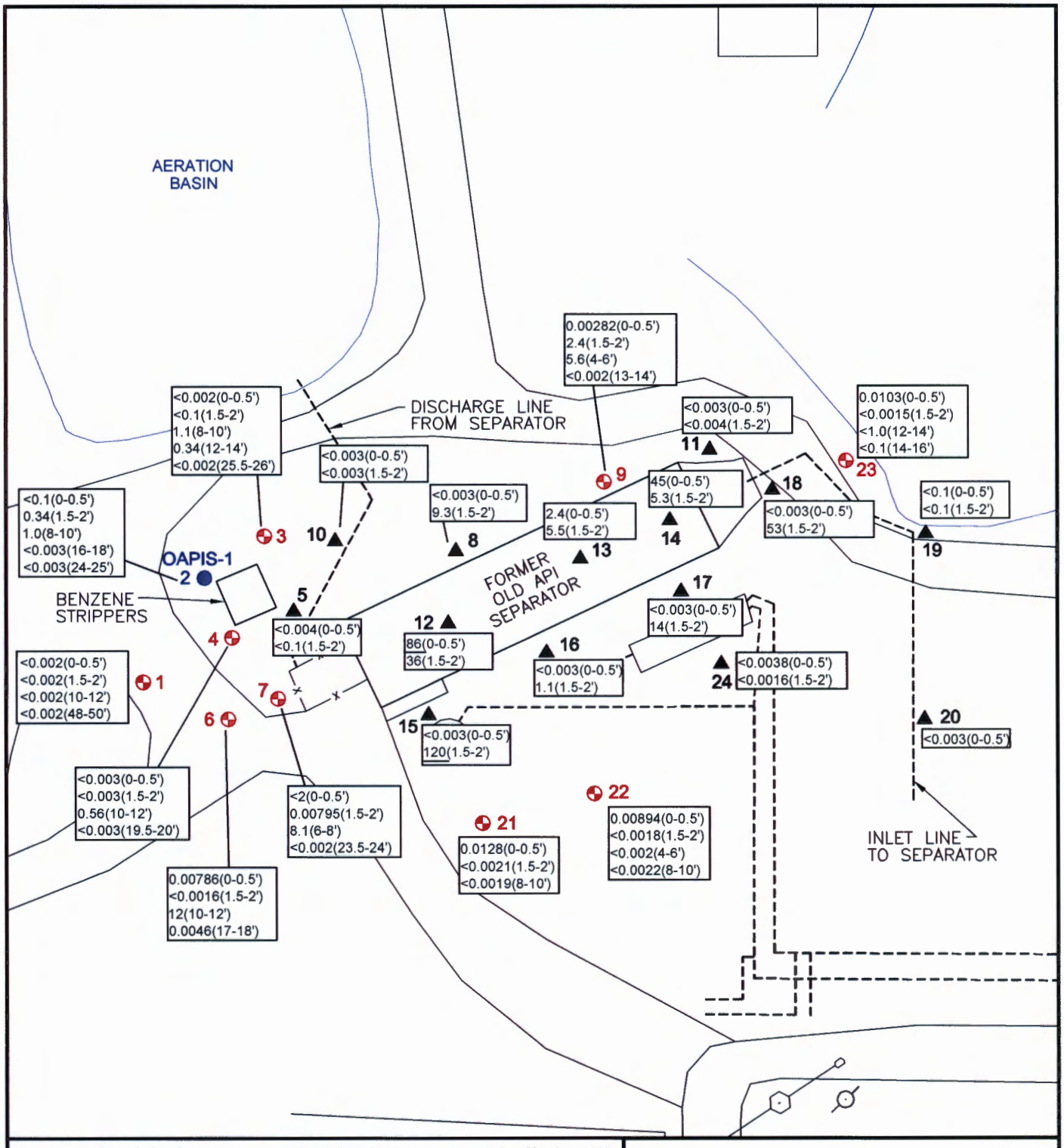

Map Source: Compiled by Photogrammetric Methods from Photography Acquired on March 1, 1998.

LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- PIPELINE
- 0.0128(0-0.5') XYLENES CONCENTRATION, mg/kg (SAMPLE DEPTH-FT)
- 72.1 UNDERLINED CONCENTRATION VALUE EXCEEDS SCREENING LEVEL

N

0 40

SCALE IN FEET

Western Refining
GALLUP REFINERY

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FIGURE 27
XYLENES
SOIL CONCENTRATIONS - SWMU No. 14
GALLUP REFINERY

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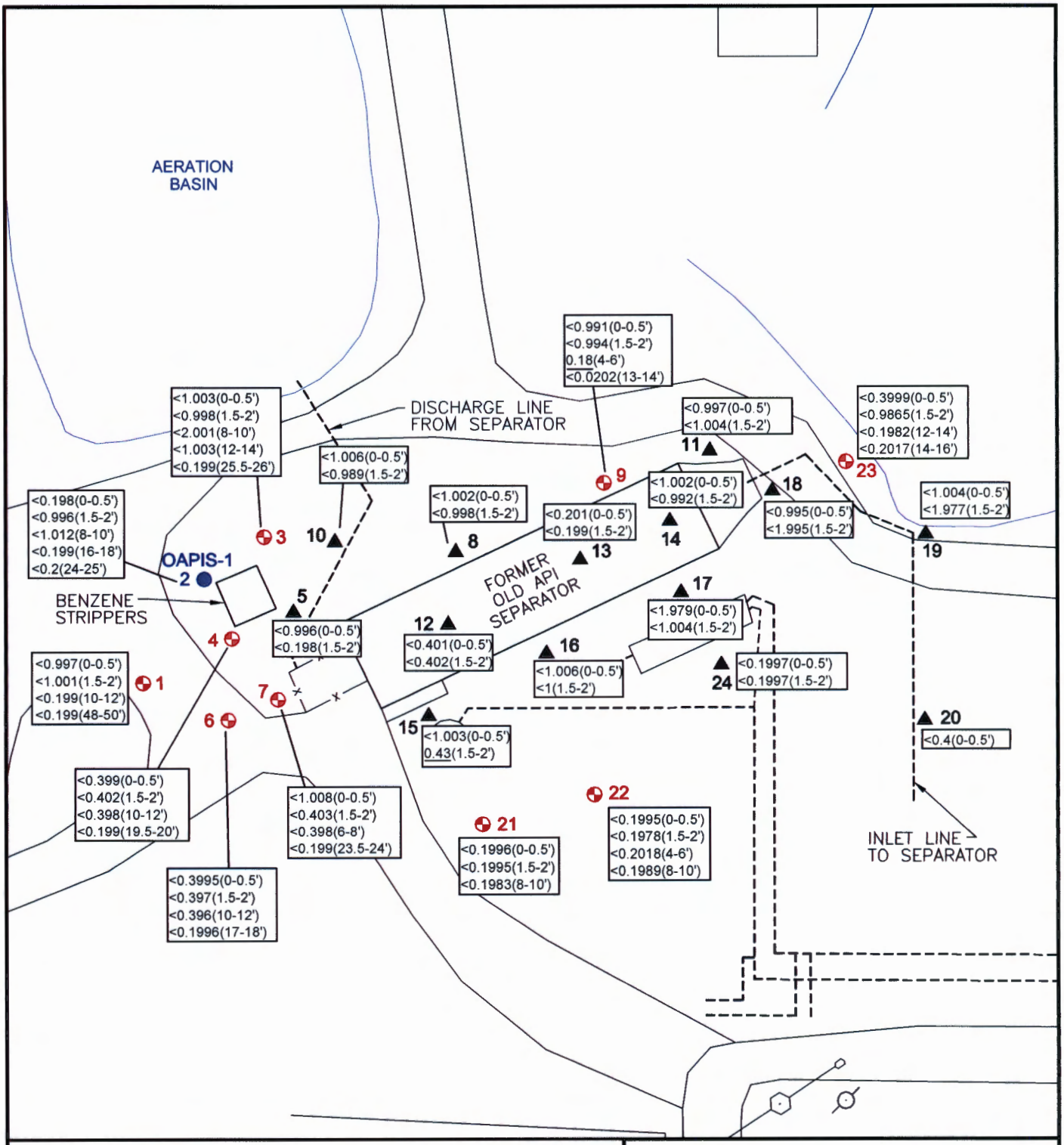

Map Source: Compiled by Photogrammetric Methods from Photography Acquired on March 1, 1998.

N

0 40
SCALE IN FEET

LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- PIPELINE
- <1.003(0-0.5') BIS(2-CHLOROETHYL)ETHER CONCENTRATION, mg/kg (SAMPLE DEPTH-FT)
- 0.0121 UNDERLINED CONCENTRATION VALUE EXCEEDS SCREENING LEVEL

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:01/31/13 | FILE:WestRef-A166

FIGURE 28
BIS(2-CHLOROETHYL)ETHER SOIL CONCENTRATIONS - SWMU No. 14 GALLUP REFINERY

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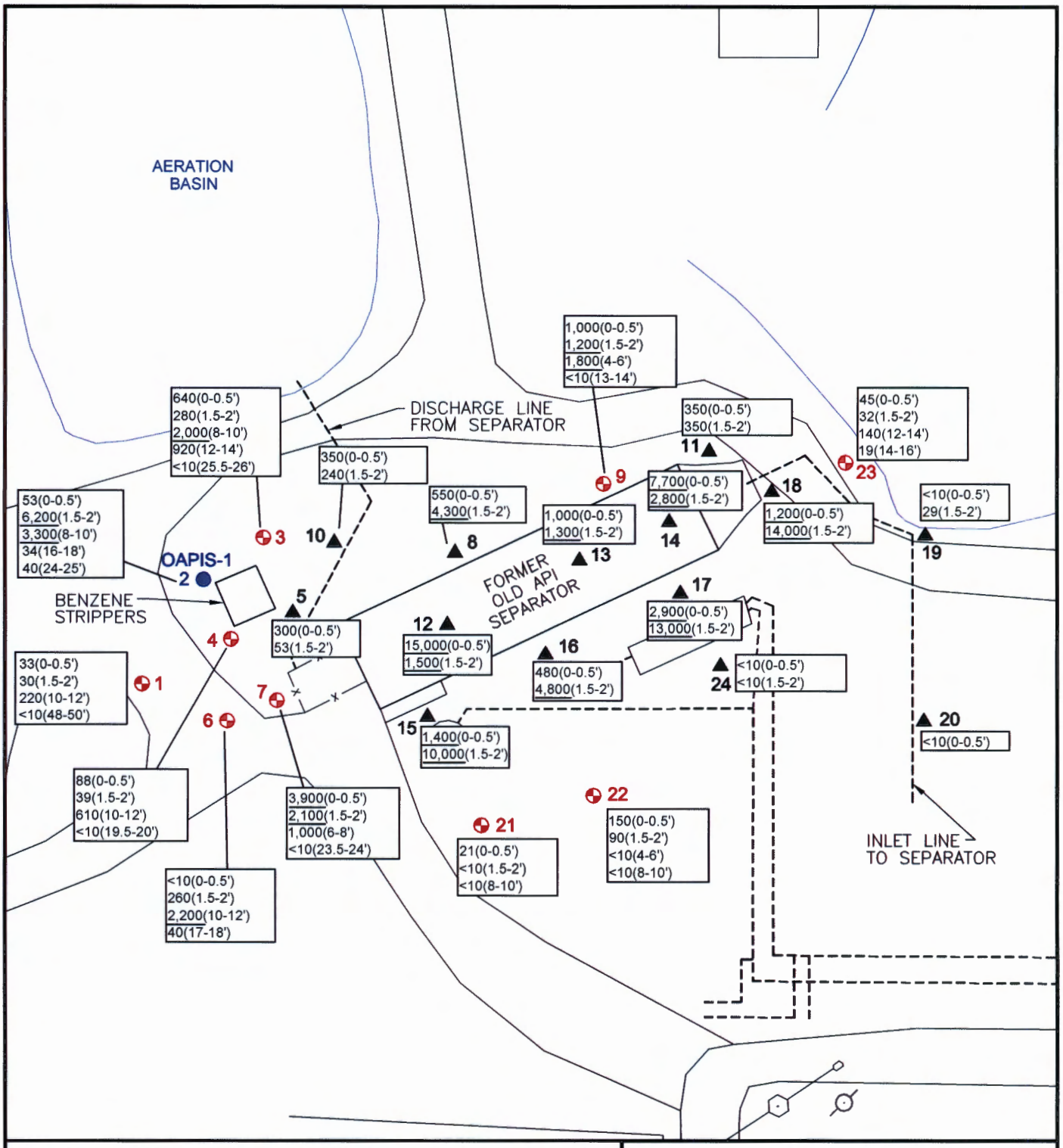

Map Source: Compiled by Photogrammetric Methods from Photography Acquired on March 1, 1998.

LEGEND

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- HAND AUGER LOCATION
- PIPELINE
- 21(0-0.5') DIESEL RANGE ORGANICS CONCENTRATION, mg/kg (SAMPLE DEPTH-FT)
- 1,000 UNDERLINED CONCENTRATION VALUE EXCEEDS SCREENING LEVEL

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:01/29/13 | FILE:WestRef-A163

FIGURE 29
DIESEL RANGE ORGANICS
SOIL CONCENTRATIONS - SWMU No. 14
GALLUP REFINERY

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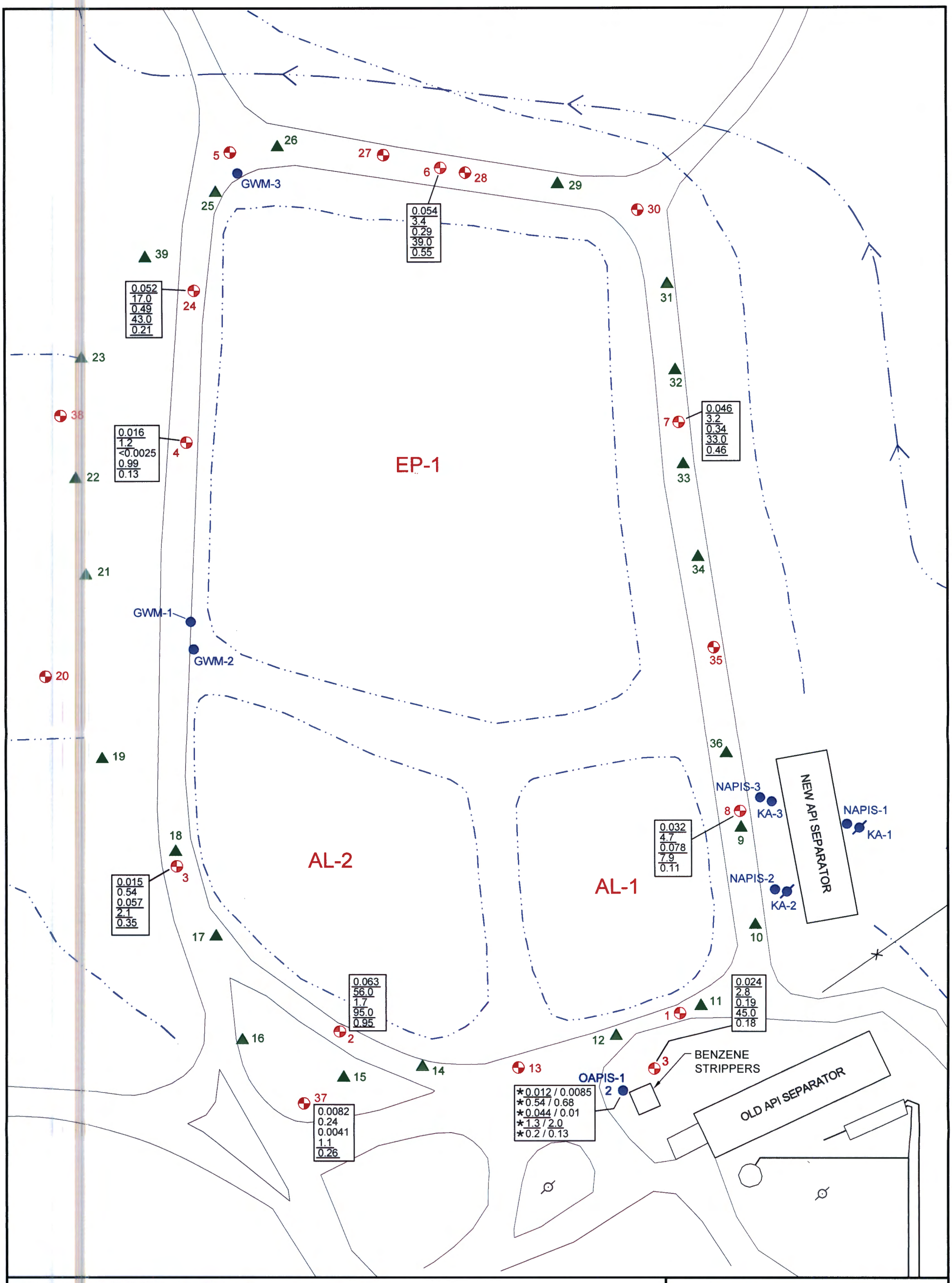

NOTE: CONSTITUENT SCREENING LEVEL UNITS - mg/l

LEGEND

- PERIMETER SOIL BORING LOCATION / TEMPORARY MONITORING WELL
- HAND AUGER SAMPLE LOCATION
- GWM-1 GROUNDWATER WELL LOCATION
- KA-1 PLUGGED & ABANDONED MONITOR WELL LOCATION
- 0.01 ARSENIC SCREENING LEVEL, mg/l
- 1.0 BARIUM SCREENING LEVEL, mg/l
- 0.015 LEAD SCREENING LEVEL, mg/l
- 0.2 MANGANESE SCREENING LEVEL, mg/l
- 0.2 NICKEL SCREENING LEVEL, mg/l
- 0.21 UNDERLINED CONCENTRATION VALUE EXCEEDS SCREENING LEVEL
- * JULY 2012 SAMPLE RESULTS

Western Refining
GALLUP REFINERY

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FIGURE 30
SWMU No. 1 & No. 14 - METALS
OCTOBER 2012 GROUNDWATER RESULTS
GALLUP REFINERY

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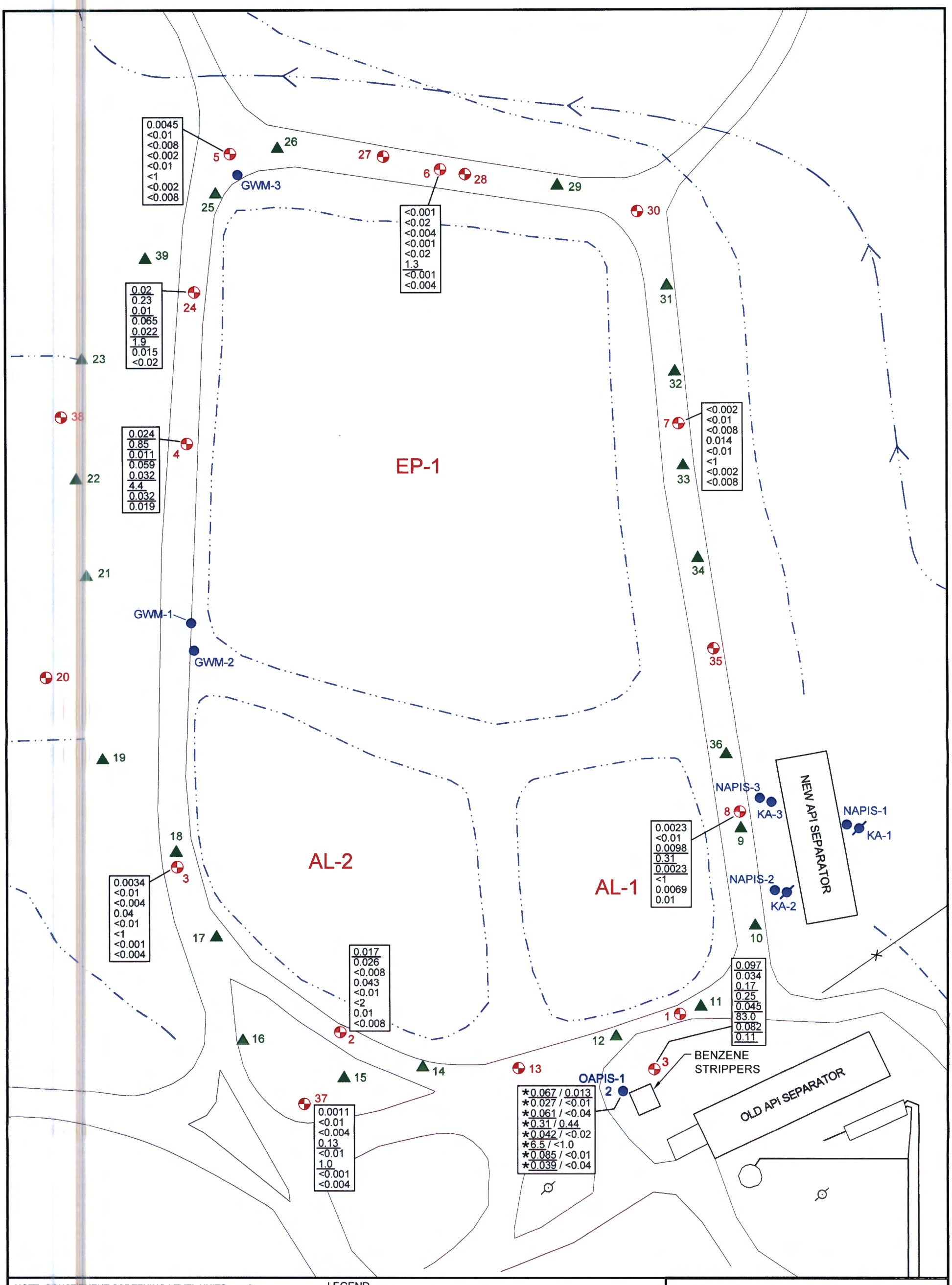

NOTE: CONSTITUENT SCREENING LEVEL UNITS - mg/l

LEGEND

- PERIMETER SOIL BORING LOCATION / TEMPORARY MONITORING WELL
- HAND AUGER SAMPLE LOCATION
- GWM-1 GROUNDWATER WELL LOCATION
- KA-1 PLUGGED & ABANDONED MONITOR WELL LOCATION
- 0.005 BENZENE SCREENING LEVEL, mg/l
- 0.73 2,4-DIMETHYLPHENOL SCREENING LEVEL, mg/l
- 0.0097 1-METHYLNAPHTHALENE SCREENING LEVEL, mg/l
- 0.125 MTBE SCREENING LEVEL, mg/l
- 0.0014 NAPHTHALENE SCREENING LEVEL, mg/l
- 0.2 DRO SCREENING LEVEL, mg/l
- 0.015 1,2,4-TRIMETHYLBENZENE SCREENING LEVEL, mg/l
- 0.027 2-METHYLNAPHTHALENE SCREENING LEVEL, mg/l
- 1.56 UNDERLINED CONCENTRATION VALUE EXCEEDS SCREENING LEVEL
- * JULY 2012 SAMPLE RESULTS

0 50
SCALE IN FEET

Western Refining
GALLUP REFINERY

PROJ. NO.:Western Refining | DATE:01/24/13 | FILE:WestRef-B153

FIGURE 31
SWMU No. 1 & No. 14 - ORGANICS
OCTOBER 2012 GROUNDWATER RESULTS
GALLUP REFINERY

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INVESTIGATION REPORT

Solid Waste Management Unit (SWMU) No. 1 Aeration Basin and SWMU No. 14 Old API Separator

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

EPA ID# NMD000333211

Volume 2 of 3
(Appendices A through D)

February 2013

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Appendix A

Trihydro Report, June 2008

AERATION LAGOONS 1 AND 2 AND EVAPORATION POND 1 - SEDIMENT INVESTIGATION

WESTERN REFINING COMPANY

GALLUP REFINERY

GALLUP, NEW MEXICO

June 2, 2008

Project #: 697-019-001

PREPARED BY: Trihydro Corporation

1252 Commerce Drive, Laramie, WY 82070

Trihydro CORPORATION

ENGINEERING SOLUTIONS. ADVANCING BUSINESS.

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Executive Summary

In January of 2008, the Western Refining Company's Gallup Refinery (Gallup) requested the assistance of Trihydro Corporation (Trihydro) to characterize the accumulated sediment in Aeration Lagoons 1 and 2 and Evaporation Pond 1. Gallup also requested that Trihydro collect sediment thickness measurement at various locations and calculate the approximate volume of sediment in the above mentioned aeration lagoons and pond.

A Sediment Sampling Work Plan (Plan) was prepared to assist in the field activities and was submitted to Western Refining Company and the New Mexico Department of Environmental Quality (NMED) on March 28, 2008. After reviewing the Plan, NMED recommended collecting discrete-depth grab samples instead of composite samples as proposed in the Plan. Gallup Refinery agreed with this recommendation and discrete-depth grab samples were collected from various sediment depths in each body of water.

Field work to implement the plan was conducted from April 7 to April 11, 2008. Field work consisted of:

- Collecting two sediment samples at five locations in each aeration lagoon.
- Measuring sediment thicknesses at each aeration lagoon sample location as well as five additional locations in each lagoon to assist in sediment volume calculations.
- Collecting one sediment sample at eight locations in Evaporation Pond 1.
- Measuring sediment thicknesses at each evaporation pond sample location as well as eight additional locations to assist in sediment volume calculations.

The sediment samples were analyzed for diesel range organics (DRO)/gasoline range organics (GRO) by USEPA method 8015, semi-volatile organic compounds (SVOCs) by USEPA method 8270, volatile organic compounds (VOCs) by USEPA method 8260, RCRA metals by USEPA method 6010C, and mercury by USEPA Method 7471. Results of the laboratory analysis are discussed in Section 6.

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1.0 INTRODUCTION

Aeration Lagoon 1, Aeration Lagoon 2, and Evaporation Pond 1 are currently used as part of Gallup's process water treatment system. Both lagoons and the evaporation pond are located in an area west/northwest from the refinery that is approximately 280 feet by 440 feet in size. Gallup is considering taking the two lagoons and Evaporation Pond 1 out of service and removing accumulated sediment. In order to determine the approximate volume of sediment that needs to be removed from each lagoon and pond, Gallup requested that Trihydro conduct a sediment investigation in each of the above mentioned bodies of water. The investigation included sampling the sediment and collecting sediment depth measurements which will assist Gallup in determining appropriate volumes and disposal methods for the sediment.

A reconnaissance event was conducted during the week of March 2, 2008. The purpose of this event was to help determine the appropriate sediment sampling and measurement methodoligies. Results of this event are discussed in Section 2. The Sediment Sampling Work Plan (Plan), prepared to assist in the investigation, was submitted to Western Refining Company on March 28, 2008. Field activities associated with the investigation were performed in accordance with the Plan unless otherwise noted in Section 3. Field investigation methodologies and results are described in detail in Section 4. Trihydro has compared the results of the analytical data with relevant screening levels that may help determine appropriate disposal of sediments. The screening levels and the results of the analytical data are described in detail in Sections 5 and 6, respectively. The approximate sediment volume calculations and investigation conclusions are discussed in Section 7.

2.0 RECONNAISSANCE FIELD EVENT

To determine the appropriate sampling techniques and sediment thickness measurement procedures, Trihydro completed a reconnaissance field event during the week of March 2, 2008. During this event, approximate water depths and sediment thicknesses were measured at six locations within Aeration Lagoon 2 and eight locations in Evaporation Pond 1.

Based on the results of the reconnaissance field event, the sediment in Aeration Lagoon 2 appeared to be stratified into two general sediment types. The uppermost sediment layer was determined to be soft, loose, and unconsolidated. This "soft sediment" ranged in thickness from approximately 8-10 feet. Similar thicknesses were encountered during the April 2008 sampling activities. During the reconnaissance event, the material underlying the soft sediment was determined to be a more compact, dense layer of sediment. This "hardpack sediment" occurs directly beneath the soft sediment and extends to the bottom of aeration lagoons. The reconnaissance field event provided information to determine the most appropriate sampling methods.

Hardpack sediment was not identified during the reconnaissance field effort in Evaporation Pond 1. Soft sediment was identified in Evaporation Pond 1 and ranged in thicknesses from approximately 2 to 4 feet. A hard layer, presumably the native soil bottom of the pond, was identified beneath the soft sediment during both field events.

3.0 DEVIATIONS FROM APPROVED PLAN

According to the Plan, at each sample location in the aeration lagoons, the soft sediment interval was to be composited and sampled and the hardpack sediment interval was to be composited and sampled. However, based on a teleconference between NMED and Gallup Refinery on April 8, 2008, the sampling methodology was modified so that one discrete-depth grab sample would be collected from each interval (soft sediment and hardpack) at each sample location at varying depths throughout the lagoons instead of compositing the entire intervals at each sample location.

Based on the March 2008 reconnaissance field event, it was presumed that only one distinct interval of sediment would be present in Evaporation Pond 1. As such, only one sediment sample was collected from each location during the April sampling event. According to the Plan, the entire sediment interval at each sampling location in Evaporation Pond 1 was to be composited and sampled. However, based on the above mentioned teleconference, one discrete-depth grab sample was collected from each sample location at varying sediment depths throughout the pond.

4.0 FIELD INVESTIGATION

Sediment measurements and samples were collected on April 7 through 11, 2008 by Trihydro personnel. The sample and measurement locations, methods, equipment, decontamination procedures, documentation and logging, and investigation derived waste (IDW) disposal are described in this section.

4.1 SITE CONDITIONS

Both lagoons and the pond are located in an area approximately 280 feet by 440 feet. Processed refinery waste water effluent from the New API Separator is discharged in to Aeration Lagoon 1 where it is furthered treated with the assistance of two large aerators. The aerators promote increased biodegradation. Water from Aeration Lagoon 1 is then routed to Aeration Lagoon 2 where it undergoes a similar process. The effluent from Aeration Lagoon 2 is drained into Evaporation Pond 1. The two aerators in Aeration Lagoon 1 were operational immediately prior to sampling activities and were shut down to allow for pond access. No aerators were operating in Aeration Lagoon 2 or Evaporation Pond 1 immediately prior to or during sampling activities. High winds with gusts up to 50 mph were common during April event.

4.2 SEDIMENT INVESTIGATION METHODOLOGY

4.2.1 SAMPLE AND SEDIMENT MEASUREMENT LOCATIONS

In order to more accurately locate appropriate and representative sediment sample and measurement locations, a grid with approximately 40 foot spacing was marked off for each lagoon and pond. Five representative sediment sample locations and five representative sediment measurement locations were selected for each lagoon. As shown on Figure 1, eight sample and eight measurement locations were selected for Evaporation Pond 1. The locations of the lagoon and pond influents, effluents, and aerators were considered when determining representative sample locations. The grids illustrated on Figure 1 were staked by Trihydro field personnel using the corners of the lagoons and pond as reference points. The density of sample locations and measuring points allowed Trihydro field personnel to sufficiently characterize the lagoons and pond.

4.2.2 SEDIMENT MEASUREMENTS

Sediment measurements in the aeration lagoons were obtained with two measuring devices: a graduated 2-inch capped PVC pipe and a graduated ¾-inch steel pole. Sediment measurements were collected at the sample locations and at the

additional measuring point locations using these two devices. The top of the soft sediment was measured by gradually inserting the PVC pipe until a slight amount of resistance was felt. The PVC was then pressed down with force until refusal was encountered. The depth that refusal with the PVC pipe was encountered is the estimated depth to the top of the hardpack sediment. For consistency, the same person took all measurements using the PVC pipe. The graduated ¾-inch steel pole was then driven to the bottom of the lagoon until refusal encountered. Due to the narrower diameter, the lack of buoyancy, and the added weight of the steel pole, it was able to be driven deeper into the sediment than the 2-inch PVC pipe. The depth at which the steel pole encountered refusal is estimated to be the bottom of the lagoon. For consistency, the same person took all measurements using the steel pole. Table 1 shows the sediment depths and thicknesses of all sampling and measuring points.

Sediment measurements were collected in a slightly different manner in Evaporation Pond 1. Evaporation Pond 1 had deeper water than the aeration lagoons. The deeper water made collecting sediment measurements with the PVC pipe difficult. Therefore, the ¾-inch graduated steel pole was used to record sediment measurements in Evaporation Pond 1 which contains only one distinct sediment interval. The steel pole was gradually inserted into the water until a slight amount of resistance was encountered. This depth is the estimated depth of the top of the soft sediment. The steel pole was then driven into the sediment until refusal was encountered. The depth at which the steel pole encountered refusal was taken to be the depth of the bottom of the pond. For consistency, the same person took all measurements using the steel pole in Evaporation Pond 1.

4.2.3 SEDIMENT SAMPLING

Several procedures were utilized to sample the sediment depending on the anticipated sediment sample depths and consistencies. The procedures and methods are discussed below.

4.2.3.1 SAMPLING METHODS AND PROCEDURES – AERATION LAGOONS

Based on the March 2008 reconnaissance field event, it was presumed that there would be two distinct layers of sediment in each of the two lagoons: a soft sediment layer and a hardpack layer. As such, two sediment samples were collected at each location. Two different sampling techniques were used to obtain representative sediment samples from the different layers: a butterfly valve-operated sediment sampler (Sediment Sampler) and a stainless steel hand auger (Auger).

Soft sediment samples were collected using the Sediment Sampler. The Sediment Sampler was pushed into the soft sediment from a boat at each sampling location. A clean, disposable, eight foot sediment core tube was used at each sample location. The core tube was driven to a sediment depth of eight feet, total depth, or until refusal was reached using a rubber mallet. Upon retrieval, the butterfly valve closes creating a suction that prevents the sediment from falling out of the bottom of the core tube. The core tube was then immediately capped until the samples could be extracted. Samples were extracted by removing the bottom and top caps off of the core tube allowing the sediment to gradually slide out onto a clean piece of plastic sheeting. Varying depths were selected at each sampling location to collect representative samples. A discrete-depth grab sample was then collected from the selected depth and placed on ice.

The Auger was used to collect discrete-depth hardpack sediment samples from sample locations in the aeration lagoons. Field personnel attempted to collect hardpack samples from as close to the original soft sediment sampling location as possible. The depths of the discrete-depth grab samples were determined in the field based on the results of the sediment measurements described in Section 4.2.2. It should be noted that much difficulty was encountered when attempting to drive the Auger to the desired sample depths. At one location, the Auger became stuck in the sediment to the extent that manual retrieval was not a safe option. Subsequently, field personnel determined that it was not safe to attempt to drive the auger to all of the desired sampled depths. As such, the Auger was driven into the sediment until the desired sample depth was achieved or until refusal. Soft sediment overlying the desired hard pack sample interval was pushed through the open top of the Auger as the Auger was driven down. After the desired depth or refusal was achieved, the hardpack sediment was extracted from the Auger, sampled, and placed on ice.

It should be noted that the soft sediment and hardpack sediment descriptions and corresponding depths on the sediment sample forms in Appendix B were obtained from the sediment collected with the Sediment Sampler and the Auger. The measurements that were used to approximate sediment volumes were obtained with the graduated, capped 2-inch PVC pipe and the graduated, ¾-inch steel pole as described in Section 4.2.2. Due to the different techniques and equipment used for sampling and measurement collecting, slight discrepancies exist between the measurements collected with the two different devices.

4.2.3.2 SAMPLING METHODS AND PROCEDURES – EVAPORATION POND 1

As mentioned in Section 2.0, no hardpack sediment was encountered in Evaporation Pond 1. Soft pack sediment sampling was performed in the same manner described for Aeration Lagoons 1 and 2. Sediment thicknesses were

much less in Evaporation Pond 1 than they were in the aeration lagoons. At sampling locations, sediment thicknesses ranged from 1.2 to 2.2 feet.

4.2.4 EQUIPMENT DECONTAMINATION PROCEDURES

Sampling equipment was decontaminated before sampling commenced and after each sample was collected. All sampling devices were decontaminated using a non-phosphate detergent solution followed by two distilled water rinses. Prior to use, the equipment was either air-dried or dried with clean paper towels. The PVC pipe and steel pole used to for collecting sediment measurements were not decontaminated in between measuring points because these devices did not come in contact with the samples.

4.2.5 FIELD DOCUMENTATION AND LOGGING

A qualified geologist was on-site to log all sediment samples. The sample logs were completed according to the Plan specifications. Sample logs are included as Appendices B. No field screening (Photo-ionization Detector) was performed because all sediment samples were collected from beneath the water of the lagoons and pond and were saturated upon retrieval.

Photographs were used to document field activities. These photographs may be used to substantiate and augment the field notes. Photographs were also taken of sediment samples that were characteristic of samples collected from the lagoons and pond. Additionally, photographs were taken to document unique features of sample media, sediment staining, or other defining features. Since the majority of the samples collected were very similar in appearance, Trihydro did not deem it necessary to take photographs of every sediment sample. Each photograph was numbered and recorded on the photograph log. The investigation photographs are included as Appendix A.

4.3 SEDIMENT CHARACTERISTICS

The sediments encountered in the aeration lagoons and Evaporation Pond 1 differed slightly. Each is described in detail below.

4.3.1 SEDIMENT CHARACTERISTICS – AERATION LAGOONS 1 AND 2

Sediment characteristics were recorded on the sediment sample forms included as Appendix B. The sediment layers encountered during sampling were not as distinct as was anticipated based on the March 2008 reconnaissance field event. A visual distinction between the two layers was not clearly evident during the April 2008 field event, however,

as described in Section 4.2.2., an attempt was made to measure the soft sediment and hardpack sediment layers in the aeration lagoons. Based on these measurements, soft sediment thickness ranged from 3.5 feet to 5.9 feet in Aeration Lagoon 1 and 5.8 feet to 8.5 feet in Aeration Lagoon 2. The sediment characteristics were similar in both ponds. The sediment is described on the sample forms as a black sludge (organic) that is generally fluid in the upper portion and thickens with depth. At some locations, varying degrees of silt content, green staining, and fibrous root content are noted. An organic odor is described throughout all sampling locations. Based on the measurements described in Section 4.2.2, the hardpack sediment ranges in thickness from 0 feet to 2.5 feet in Aeration Lagoon 1 and 0 feet to 2.2 feet in Aeration Lagoon 2. The hardpack sediment in Aeration Lagoons 1 and 2 appear to have very similar physical characteristics based on the samples collected with the Auger. The upper portion of the hardpack sediment appears to be the same as the lower portion of the soft sediment, but is slightly thicker and generally contains a greater amount of silt. The lower portion of the hardpack sediment is generally described as grey or reddish-grey clay with varying amounts of sand and silt. It is presumed that this clay is actually the base of the lagoons.

4.3.2 SEDIMENT CHARACTERISTICS – EVAPORATION POND 1

The sediment encountered in Evaporation Pond 1 appears to have very similar physical characteristics to the soft sediment encountered in the aeration lagoons. Based on the measurements described in Section 4.2.2., sediment thicknesses ranged from 1.2 feet to 5.1 feet. However, it should be noted that of the 16 locations that sediment was measured, only 5 of them had sediment thicknesses greater than 2 feet. As anticipated based on the March reconnaissance field event, only one distinct sediment layer was encountered. The sediment in Evaporation Pond 1 can generally be described as a black sludge that is fluid in the upper portions, has a silt content and thickness that increase with depth, and contains an organic odor throughout. Silt, and at some locations sand, are generally only noted in the lowest few inches of each location. Some green staining was also noted in several of the samples.

4.4 INVESTIGATION DERIVED WASTE

Excess sediment collected from the aeration lagoons and Evaporation Pond 1 was returned to the lagoons and pond from which it was collected. Wastes associated with sampling including personal protective equipment (PPE), rinse water from decontamination, and disposable sampling instruments were managed according to appropriate regulations by Gallup.

5.0 REGULATORY CRITERIA

This investigation was internally driven in order to characterize and approximate the volume of sediment in each of the lagoons and pond. As such, no regulatory screening levels have been designated as the clean up criteria of the sediment. However, since the data obtained in this investigation may be utilized to determine appropriate disposal options for the sediment upon pond/lagoon closure, Trihydro included a comparison of the analytical results to the EPA's Maximum Concentration of Contaminants for the Toxicity Characteristic and NMED's Industrial Soil Screening Levels. These comparisons are illustrated on Table 2 and described in detail in Section 7.2.

6.0 ANALYTICAL RESULTS

Laboratory sampling analyses included diesel range organics (DRO)/gasoline range organics (GRO) by USEPA method 8015, semi-volatile organic compounds (SVOCs) by USEPA method 8270, volatile organic compounds (VOCs) by USEPA method 8260, RCRA metals by USEPA method 6010C, and mercury by USEPA Method 7471. The laboratory results are included as Appendix C. The sample data is summarized in Table 2.

6.1 TOTAL PETROLEUM HYDROCARBONS (TPH)

DRO was detected in each of the sediment samples at concentrations ranging from 7,200 mg/kg to 370,000 mg/kg. MRO was detected in 11 of the 28 samples analyzed at concentrations ranging from 25,000 mg/kg to 37,000 mg/kg and was detected in each body of water including both the soft sediment and the hardpack sediment samples in the aeration lagoons. GRO was detected in each Aeration Lagoon 1 sample (soft sediment and hardpack) and one Aeration Lagoon 2 sample (soft sediment) at concentrations ranging from 150 mg/kg to 670 mg/kg. GRO was not detected in any of the Evaporation Pond 1 samples. The average total TPH concentration (DRO + MRO + GRO) for Aeration Lagoon 1, Aeration Lagoon 2, and Evaporation Pond 1 was 133,870 mg/kg, 193,343 mg/kg, and 164, 750 mg/kg, respectively. The average TPH concentrations were higher in the soft sediment samples than the hardpack sediment samples in both aeration lagoons. When comparing the average TPH concentrations of the soft sediment samples to the hardpack samples, the Aeration Lagoon 1 showed a 22 percent decrease and Aeration Lagoon 2 showed a 54 percent decrease.

6.2 METALS

The suite of metals for which the samples were analyzed consisted of arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver. Of these, arsenic, barium, cadmium, chromium, lead, and mercury were detected in each sample. Selenium and silver were not detected in any samples analyzed. Arsenic concentrations ranged from 3.2 mg/kg to 47 mg/kg, barium concentrations ranged from 81 mg/kg to 500 mg/kg, cadmium concentrations ranged from 0.12 mg/kg to 6.6 mg/kg, chromium concentrations ranged from 8.3 mg/kg to 60 mg/kg, lead concentrations ranged from 9.7 mg/kg to 220 mg/kg, and mercury concentrations ranged from 2.1 mg/kg to 18 mg/kg. The average total-metal concentrations (arsenic + barium + cadmium + chromium + lead + mercury) decreased in the direction of water flow: Aeration Lagoon 1 showed an average metal concentration of 398 mg/kg, Aeration Lagoon 2 showed an average metal concentration of 349 mg/kg, and Evaporation Pond 1 showed an average metal concentration of 313 mg/kg. In Aeration Lagoon 1, the average metal concentration was 45 percent higher in the hardpack sediment than it was in the

soft sediment. In Aeration Lagoon 2, the average metal concentration was 22 percent higher in the soft sediment than it was in the hardpack sediment.

6.3 SEMI-VOLATILE ORGANIC COMPOUNDS

Each sample was analyzed for a suite of 69 SVOCs using USEPA method 8270C (see Appendix C). Of these constituents, the following compounds were detected in one or more of the lagoon and pond samples: benzo(a)anthracene, chrysene, fluorene, 2-methylnaphthalene, 3+4-methylnaphthalene, naphthalene, phenanthrene, phenol, and pyrene. The average total SVOC concentration (the sum of the above mentioned analytes) for Aeration Lagoon 1, Aeration Lagoon 2, and Evaporation Pond 1 was 609 mg/kg, 418 mg/kg, and 519 mg/kg, respectively. The average SVOC concentrations of the soft sediment samples in Aeration Lagoon 1 and 2 were 32 percent and 66 percent higher than that of the hardpack sediment samples in the lagoons, respectively.

6.4 VOLATILE ORGANIC COMPOUNDS

Each sample was analyzed for a suite of 65 VOCs using USEPA method 8260B (see Appendix C). Of these constituents, the following compounds were detected in one or more of the lagoon/pond samples: benzene, toluene, ethylbenzene, MTBE, 1,2,4-trimethylbenzne, 1,3,5-trimethylbenzene, naphthalene, 1-methylnaphthalene, 2-methylnaphthalene, carbon disulfide, isopropylbenzene, 4-isopropyltoluene, n-butylbenzene, n-propylbenzene, sec-butylbenzene, and xylenes. The average total VOC concentrations (the sum of the above mentioned analytes) decreased in the direction of water flow. Aeration Lagoon 1 had an average total VOC concentration of 161 mg/kg, Aeration Lagoon 2 had an average total VOC concentration of 54 mg/kg, and Evaporation Pond 1 had an average total VOC concentration of 24 mg/kg. In Aeration Lagoon 1, the average total VOC concentration in the hardpack sediment was 3 percent higher than average total VOC concentrations in the soft sediment. In Aeration Lagoon 2, the average total VOC concentration was 68 percent higher in the soft sediment than it was in the hardpack sediment.

6.5 QUALITY ASSURANCE/QUALITY CONTROL PROTOCOL

Analytical data was validated through EPA Tier 1 and Tier 2 data validation standards. Analytical parameters, such as surrogate recoveries and duplicate sample analyses, were reviewed to verify the quality of data submitted. Laboratory data were also validated to verify that the samples were analyzed according to the specified USEPA Methods. Based on the Tier II data validation, qualifiers were added to the laboratory results due to high Matrix Spike (MS) and Matrix Spike Duplicate (MSD) results, high Relative Percent Difference (RPD)s, low surrogate recoveries, and severe matrix

interference. Results were flagged with a "J", indicating that the detection value is estimated, or with a "UJ", indicating that the reporting limit is estimated. No data was rejected based on the Tier II data validation. The analytical results are included as Appendix C and the data validations are included as Appendix D. Field QAQC measures included the collection of one blind duplicate per 20 samples collected, the collection of one MS and MSD sample set, and the collection of one equipment blank per day of sampling with non-disposable sampling equipment.

7.0 CONCLUSIONS

The purpose of this report was to describe the field activities implemented to determine approximate sediment volumes and to characterize the sediment for Aeration Lagoon 1, Aeration Lagoon 2, and Evaporation Pond 1. The conclusions of the investigation are discussed below.

7.1 SEDIMENT VOLUMES

Figure 1 illustrates the approximate dimensions of Aeration Lagoon 1, Aeration Lagoon 2, Evaporation Pond 1, and the sampling and measuring point locations. These dimensions and sediment measurements were used as input parameters in SurvCAD to approximate sediment volumes for each body of water. SurvCAD volume calculations are included as Appendix E. SurvCAD estimates approximately 1464 cubic yards of soft sediment and 229 cubic yards of hardpack sediment have accumulated in Aeration Lagoon 1. SurvCAD estimates approximately 3404 cubic yards of soft sediment and 430 cubic yards of hardpack sediment have accumulated in Aeration Lagoon 2. As mentioned in Section 4.3.1, the distinction between the soft sediment and hardpack sediment in the aeration lagoons was not as evident as had been anticipated based on the March 2008 reconnaissance event. Because of this, for the purposes of disposal options, it may be easier to consider the entire sediment layer as one total volume for the lagoons. With this in mind, the total volume of sediments in Aeration Lagoons 1 and 2 are 1693 cubic yards and 3834 cubic yards, respectively. SurvCAD estimates that there is approximately 3178 cubic yards of sediment in Evaporation Pond 1. It should be noted that the above volume calculations are in-situ calculations and that the no expansion or compaction factors have been applied. If sediment removal is determined to be an appropriate option, appropriate factors should be applied.

7.2 SEDIMENT CHARACTERIZATION

Analytical results of the sediment samples are discussed in detail in Section 6 and summarized on Table 2 As previously mentioned, the data obtained during this investigation may be utilized to determine appropriate disposal options for the sediment in the evaporation pond and aeration lagoons. As such, Trihydro included a comparison of the analytical results to the EPA's Maximum Concentration of Contaminants for the Toxicity Characteristic and NMED's Industrial Soil Screening Levels. EPA's Maximum Concentrations of Contaminants for the Toxicity Characteristic may be found in CFR Title 40 Part 261 – Identification and Listing of Hazardous Waste. These numbers are generated as screening levels for Toxicity Characteristic Leaching Procedure (TCLP) method 1311. The analysis performed on the sediment samples collected for this investigation were total constituent analysis, not TCLP. EPA does allow a total constituent analysis (as performed for Gallup's sediment samples) in lieu of the TCLP extraction. However, the results

of the total constituent analysis must be divided by twenty to be compared to the TCLP screening levels. The Maximum Concentrations of Contaminants for the Toxicity Characteristic listed of Table 2 of this report have been multiplied by 20 to adjust for the different analysis. Furthermore, the multiplier of 20 assumes that the samples were 100% solid.

As shown in Table 2, elevated concentrations of lead, mercury, arsenic, and benzo(a)anthracene were identified during this investigation. When compared to the Maximum Concentrations of Contaminants for the Toxicity Characteristic, the metals concentrations show the potential for the sediment to be characteristically hazardous. However, comparisons made should be considered estimates and the final characterization of the material should be determined during profiling.

Twenty-six samples from various depths of the three bodies of water exceeded the screening adjusted Maximum Concentrations of Contaminants for the Toxicity Characteristic screening level for mercury. Three samples exceeded this screening level for lead. It should be noted that the three samples that exceeded the lead screening level were collected from the hardpack sediment of Aeration Lagoon 1.

NMED's Industrial Soil Screening Levels may be found on Table A-1 of NMED Soil Screening Levels. Ten samples exceeded the industrial soil screening level for arsenic, and one sample exceeded the industrial soil screening level for benzo(a)anthracene. The arsenic exceedences came from the soft sediment and hardpack sediment of Aeration Lagoon 1, the soft sediment and hardpack of Aeration Lagoon 2, and sediment obtained from Evaporation Pond 1. The benzo(a)antrhacene exceedence came from Evaporation Pond 1.

It is important to note that since this investigation was internally driven, no official screening standards have been set and that disposal methods should not be determined based on the above mentioned exceedences. If the sediment is to be shipped off-site for disposal, TCLP analysis will likely be required to make a hazardous/non-hazardous determination.

TABLES

TABLE 1. SEDIMENT DEPTH AND THICKNESS MEASUREMENTS,
GALLUP REFINERY, WESTERN REFINING COMPANY, GALLUP, NEW MEXICO

Aeration Lagoon 1						
Measuring Point	Depth to Soft Sediment	Soft Sediment Thickness	Depth to Hardpack	Hardpack Thickness	Total Depth	Total Sediment Thickness
AL1-1	3.0	3.5	6.5	2.5	9.0	6.0
AL1-2	1.0	3.5	None	0.0	4.5	3.5
AL1-3	4.0	4.5	8.5	0.6	9.1	5.1
AL1-4	1.0	5.3	6.3	1.2	7.5	6.5
AL1-5	2.5	4.0	6.5	0.5	7.0	4.5
AL1-A	0.5	4.2	None	0.0	4.7	4.2
AL1-B	2.0	5.9	None	0.0	7.9	5.9
AL1-C	5.0	3.2	8.2	0.4	8.6	3.6
AL1-D	1.0	5.3	None	0.0	6.3	5.3
AL1-E	0.5	4.5	None	0.0	5.0	4.5

Aeration Lagoon 2						
Measuring Point	Depth to Soft Sediment	Soft Sediment Thickness	Depth to Hardpack	Hardpack Thickness	Total Depth	Total Sediment Thickness
AL2-1	1.5	7.3	8.8	0.7	9.5	8.0
AL2-2	2.0	7.5	None	0.0	9.5	7.5
AL2-3	2.5	8.5	11.0	1.1	12.1	9.6
AL2-4	1.5	8.0	9.5	0.8	10.3	8.8
AL2-5	1.5	6.5	8.0	1.5	9.5	8.0
AL2-A	1.5	8.2	9.7	0.8	10.5	9.0
AL2-B	1.5	8.2	9.7	1.3	11.0	9.5
AL2-C	2.0	8.0	10.0	0.5	10.5	8.5
AL2-D	2.0	6.7	8.7	2.2	10.8	8.8
AL2-E	4.0	5.8	9.8	0.7	10.5	6.5

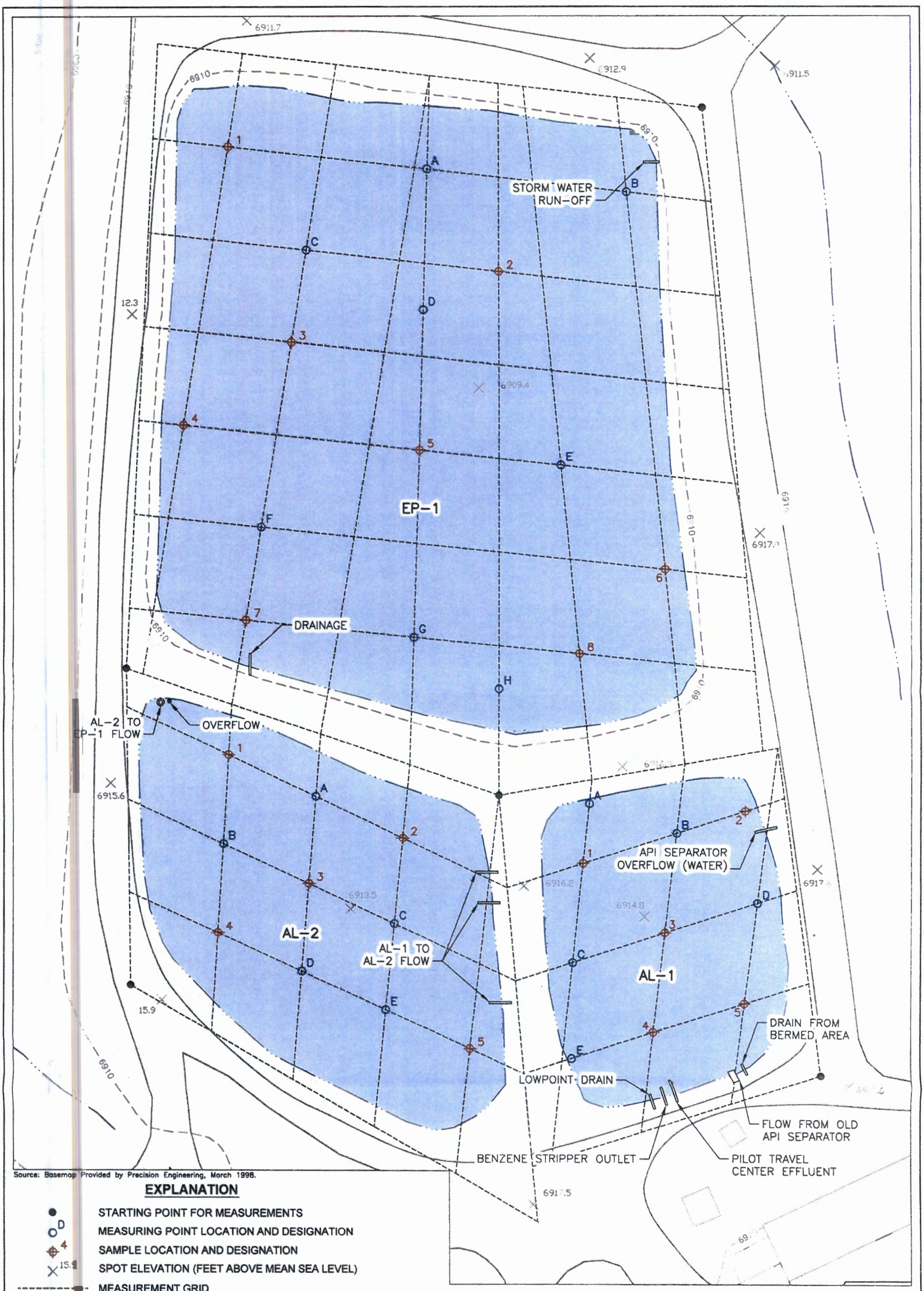
Evaporation Pond 1						
Measuring Point	Depth to Soft Sediment	Soft Sediment Thickness	Depth to Hardpack	Hardpack Thickness	Total Depth	Total Sediment Thickness
EP1-1	5.5	2.2	None	None	7.7	2.2
EP1-2	9.7	1.3	None	None	11.0	1.3
EP1-3	7.9	1.7	None	None	9.6	1.7
EP1-4	7.8	1.5	None	None	9.3	1.5
EP1-5	11.4	1.3	None	None	12.7	1.3
EP1-6	4.3	1.5	None	None	5.8	1.5
EP1-7	6.8	1.2	None	None	8.0	1.2
EP1-8	5.3	1.7	None	None	7.0	1.7
EP1-A	10.0	1.6	None	None	11.6	1.6
EP1-B	6.0	2.1	None	None	8.1	2.1
EP1-C	7.5	4.3	None	None	11.8	4.3
EP1-D	7.3	5.1	None	None	12.4	5.1
EP1-E	5.1	1.5	None	None	6.6	1.5
EP1-F	6.9	1.8	None	None	8.7	1.8
EP1-G	8.0	3.2	None	None	11.2	3.2
EP1-H	6.0	1.6	None	None	7.6	1.6

TABLE 2. ANALYTICAL DATA SUMMARY,
GALLUP REFINERY, WESTERN REFINING COMPANY, GALLUP, NEW MEXICO

		TPH			Metals						SVOCs									VOCs													
Sample ID	Sample Depth (ft below top of sediment)	DRO (mg/kg)	MRO (mg/kg)	GRO (mg/kg)	Mercury (mg/kg)	[redacted]	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	[redacted]	Chrysene (mg/kg)	Fluorene (mg/kg)	2-Methyl naphthalene as SVOC (mg/kg)	3+4-Methylphenol (mg/kg)	Naphthalene as SVOC (mg/kg)	Phenanthrene (mg/kg)	Phenol (mg/kg)	Pyrene (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	MTBE (mg/kg)	1,2,4 - Trimethyl benzene (mg/kg)	1,3,5- Trimethyl benzene (mg/kg)	Napthalene as VOC (mg/kg)	1-Methyl napthalene (mg/kg)	2-Methyl naphthalene as VOC (mg/kg)	Carbon disulfide (mg/kg)	Isopropyl benzene (mg/kg)	4-Isopropyl toluene (mg/kg)	n-Butylbenzene (mg/kg)	n-Propyl benzene (mg/kg)	sec-Butylbenzene (mg/kg)	Xylenes (mg/kg)
AL1-1-SS	4.8	71000	ND	300	19	[redacted]	140	0.64	44	23	ND	ND	ND	190	ND	53	50	34	ND	3.6	17	4.3	ND	11	2.7	10	13	21	ND	0.64	ND	0.65	1.4	ND	27
AL1-2-SS	2.3	190000	25000	560	11	11	190	0.69	19	79	ND	ND	70	460	42	79	210	35	39	5.1	32	10	1.1	26	6.7	19	42	44	ND	1.8	1	2.6	4.7	1.9	56
AL1-3-SS	3.3	54000	ND	170	7	12	210	0.18	16	25	ND	ND	36	200	ND	41	84	ND	ND	1.3	5.7	1.8	ND	6.7	1.7	4	10	15	ND	ND	ND	1.7	0.85	0.82	12
AL1-4-SS	5.6	190000	ND	280	9.5	9.5	280	0.48	24	38	ND	33	91	530	ND	94	200	ND	44	4.2	19	5.7	ND	18	4.1	14	28	45	ND	0.79	0.56	1.3	2.4	1.3	33
AL1-5-SS	0.8	220000	ND	280	9.9	12	360	0.2	13	30	ND	ND	84	600	ND	110	220	ND	ND	5.9	24	6.1	1.1	16	4	14	29	43	ND	1.2	0.71	3	2.5	1.2	35
AL1-1-HP	5.5	7200	ND	240	3.1	11	150	1.2	40	23	ND	ND	ND	23	6.2	6.7	8.4	6.7	ND	1.2	6.8	2.9	ND	12	3.3	7.2	15	22	ND	0.72	0.54	2.7	1.7	0.96	18
AL1-2-HP	3.0	200000	37000	260	5	[redacted]	350	1.4	51	110	ND	34	40	260	98	65	140	54	ND	2.4	11	3.4	ND	10	2.8	6.5	14	20	ND	0.58	ND	2.1	1.5	0.8	20
AL1-3-HP	3.8	110000	ND	150	6.7	11	220	0.12	16	22	ND	ND	40	200	ND	36	100	ND	ND	2	7	1.9	ND	8.3	2	5.9	15	20	ND	0.51	0.53	2.1	1.2	0.89	12
AL1-4-HP	5.1	76000	ND	590	8.3	[redacted]	310	1.4	60	220	ND	31	ND	340	ND	90	84	ND	ND	3.2	22	11	ND	37	10	21	29	46	ND	1.6	0.84	7	5.9	1.8	60
AL1-5-HP	3.4	130000	25000	670	18	[redacted]	450	0.79	46	110	ND	ND	47	460	47	110	130	ND	ND	9	48	15	0.74	26	7.4	19	28	42	ND	2.6	0.9	4.9	4.8	1.9	81
AL2-1-SS	6.0	50000	ND	ND	8.4	[redacted]	260	6.6	30	48	ND	ND	ND	ND	150	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AL2-2-SS	4.5	260000	31000	ND	6.8	13	500	0.32	21	24	ND	ND	98	450	ND	38	230	ND	ND	ND	2.1	0.72	ND	4.5	1.1	5.8	26	37	ND	ND	ND	1	ND	ND	4.9
AL2-3-SS	0.5	300000	29000	ND	8.9	8.4	350	0.42	14	24	ND	ND	32	43	300	ND	ND	250	ND	47	ND	1.2	ND	ND	2.9	0.54	4.6	21	27	ND	ND	ND	0.66	ND	ND	2.8
AL2-4-SS	3.0	250000	35000	ND	8.1	14	190	0.42	16	32	ND	ND	44	190	ND	44	210	ND	ND	ND	1.6	0.56	ND	4.1	0.72	5.4	24	30	ND	ND	ND	1.1	ND	ND	4
AL2-5-SS	0.5	370000	ND	430	6.8	4.6	310	0.31	12	18	ND	ND	70	550	ND	85	250	ND	36	2.3	18	6.4	ND	17	5.6	15	43	35	ND	1.7	1	3.4	3	2	39
AL2-1-HP	7.4	120000	28000	ND	7.4	[redacted]	81	2.4	29	32	ND	42	ND	ND	99	ND	50	ND	38	ND	0.6	ND	ND	0.93	ND	ND	2.5	2.4	ND	ND	ND	ND	ND	ND	1.9
AL2-2-HP	9.8	130000	ND	ND	6.4	[redacted]	300	0.73	22	39	ND	ND	36	140	36	ND	93	ND	ND	ND	1.1	ND	ND	3	0.71	3.2	11	15	ND	ND	ND	0.56	ND	ND	3.8
AL2-3-HP	9.1	110000	ND	ND	2.1	9.8	280	0.26	15	12	ND	ND	32	110	44	ND	89	ND	ND	ND	0.53	0.62	ND	3.8	0.87	3.4	12	17	ND	ND	ND	0.89	ND	ND	4.3
AL2-4-HP	8.4	140000	29000	ND	6.4	[redacted]	270	5.2	45	55	ND	ND	ND	57	100	ND	55	43	ND	ND	1.1	ND	ND	ND	ND	1.6	5.7	7.2	ND	ND	ND	ND	ND	ND	3.2
AL2-5-HP	7.5	51000	ND	ND	4.7	14	160	0.62	53	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.1	ND	ND	1.1	ND	1.2	5.4	6.6	5.8	ND	ND	ND	ND	ND	1.8
EP1-1	1.1	200000	ND	ND	6.8	5.4	400	0.45	9.7	16	ND	45	53	370	53	31	330	ND	47	ND	0.51	ND	ND	1.5	ND	2.6	12	16	ND	ND	ND	ND	ND	ND	ND
EP1-2	1.1	150000	ND	ND	4.4	17	190	0.58	24	18	ND	ND	ND	58	34	ND	71	ND	ND	ND	0.51	ND	ND	1.4	ND	1.4	5.8	7.7	ND	ND	ND	ND	ND	ND	1
EP1-3	1.5	110000	ND	ND	5.1	6.5	220	0.43	13	15	ND	ND	47	140	60	ND	130	ND	ND	ND	0.68	ND	ND	1.2	ND	1.3	4.9	6.8	ND	ND	ND	ND	ND	ND	1.1
EP1-4	1.1	130000	27000	ND	9.6	[redacted]	330	6.4	41	39	ND	ND	59	180	86	ND	210	ND	40	ND	0.65	ND	ND	1.3	ND	1.7	6	7.6	ND	ND	ND	ND	ND	ND	1.2
EP1-5	1.1	120000	ND	ND	6	[redacted]	150	0.97	23	22	ND	57	42	130	140	ND	150	ND	48	ND	0.69	ND	ND	1.5	ND	1.9	7.1	10	ND	ND	ND	ND	ND	ND	1.7
EP1-6	0.8	180000	26000	ND	4.1	3.2	330	0.26	8.8	16	ND	40	70	210	ND	ND	150	ND	41	ND	0.63	ND	ND	2.2	ND	2.8	15	19	ND	ND	ND	ND	ND	ND	1.3
EP1-7	1.0	200000	25000	ND	4.4	3.6	280	0.27	8.3	9.7	[redacted]	74	77	260	ND	ND	240	ND	70	ND	ND	ND	ND	1.7	ND	1.7	9.1	12	ND	ND	ND	ND	ND	ND	ND
EP1-8	1.5	150000	ND	ND	4.9	11	120	0.8	58	15	ND	ND	41	110	ND	ND	120	ND	ND	ND	0.54	ND	ND	1.2	ND	1.6	8.1	11	ND	ND	ND	ND	ND	ND	ND
EPA Maximum Concentration of Contaminants for the Toxicity Characteristic (X 20 to adjust for total constituent concentrations)		NA	NA	NA	4	100	2000	20	100	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NMED Table A-1 Soil Screening Levels (Industrial)		[redacted]																																	

*Chromium VI screening level used.
**Elemental Mercury screening level used.
Bold concentrations indicate exceedence of EPA Maximum Concentration of Contaminants for the Toxicity Characteristic.
[redacted]

FIGURES



Trihydro CORPORATION
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FIGURE 1
SEDIMENT MEASUREMENT AND SAMPLE LOCATIONS FOR AERATION LAGOONS 1&2 AND EVAPORATION POND 1
WESTERN REFINING COMPANY L.L.C.
GALLUP REFINERY
GALLUP, NEW MEXICO

Drawn By: REP	Checked By: SS	Scale: 1" = 40'	Date: 4/22/08	File: 072SAMPPOINTS200804

APPENDIX A

INVESTIGATION PHOTOS

Sampling with hand auger at AL2-3

Date: 4/8/2008 Direction: S Taken By: SS
File: evap ponds 003.jpg Job Number: 697-019-001

Extracting auger core from auger at AL2-3.

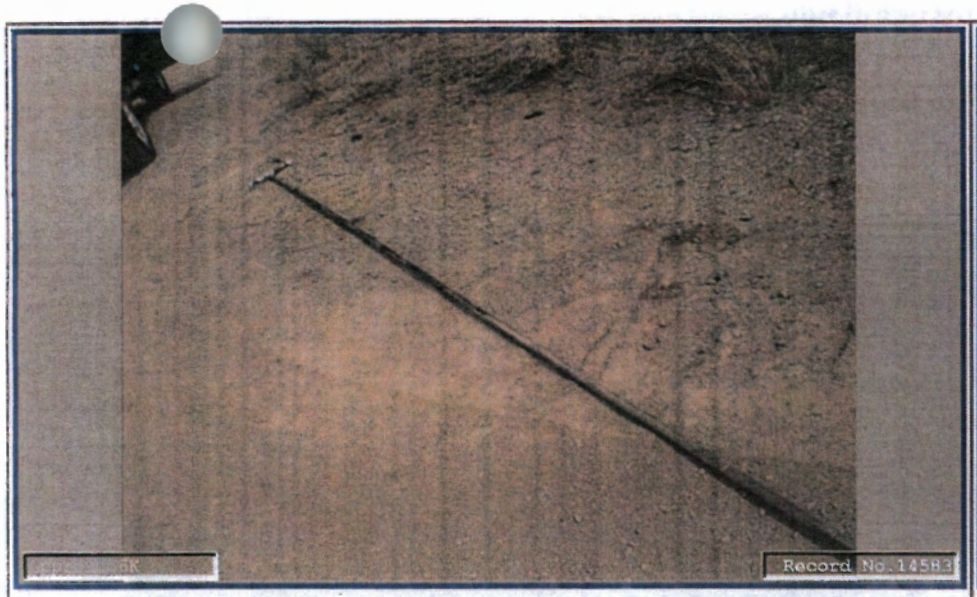
Date: 4/8/2008 Direction: W Taken By: SS
File: evap ponds 004.jpg Job Number: 697-019-001

View of grey clay representative of bottom of aeration lagoons, taken from AL2-3.

Date: 4/8/2008 Direction: N Taken By: SS
File: evap ponds 005.jpg Job Number: 697-019-001

Filling AL2-3 sample jar.

Date: 4/8/2008 Direction: W Taken By: SS
File: evap ponds 006.jpg Job Number: 697-019-001



Hardpack sediment measurement instrument (3/4" graduated steel rod).

Date: 4/9/2008 Direction: E Taken By: SS
File: evap ponds 007.jpg Job Number: 697-019-001

Hardpack sediment measurement instrument (3/4" graduated steel rod) - zoom in.

Date: 4/9/2008 Direction: E Taken By: SS
File: evap ponds 008.jpg Job Number: 697-019-001

Storm water run-off pipe - Evaporation Pond 1

Date: 4/10/2008 Direction: SE Taken By: SS
File: evap ponds 009.jpg Job Number: 697-019-001

Overflow drain - Evaporation Pond 1

Date: 4/10/2008 Direction: SW Taken By: SS
File: evap ponds 010.jpg Job Number: 697-019-001

Drainage pipes - Evaporation Pond 1

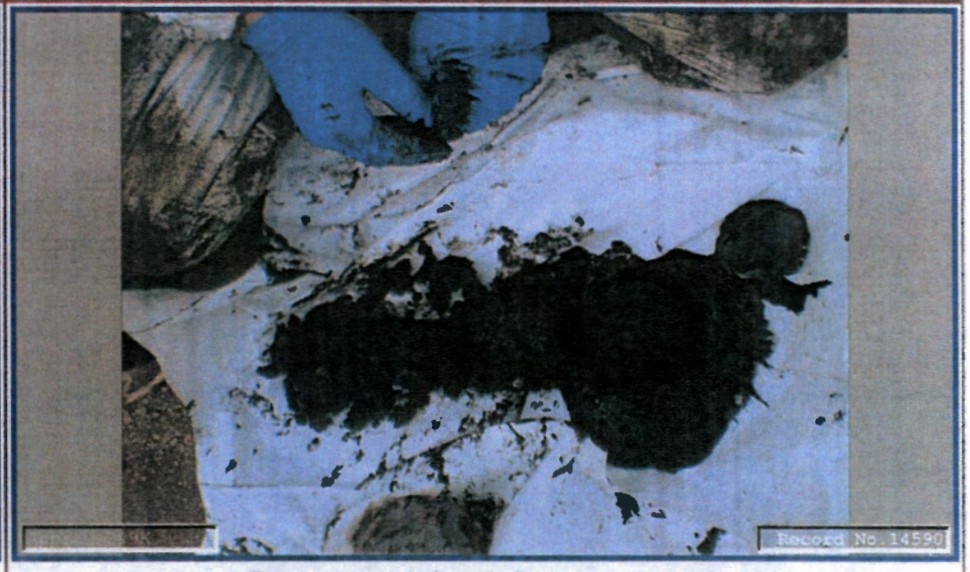
Date: 4/10/2008 Direction: W Taken By: SS
File: evap ponds 011.jpg Job Number: 697-019-001

Hardpack sample from AL2-4, characterisic of the hardpack of Aeration Lagoons 1 and 2.

Date: 4/10/2008 Direction: W Taken By: SS
File: evap ponds 012.jpg Job Number: 697-019-001

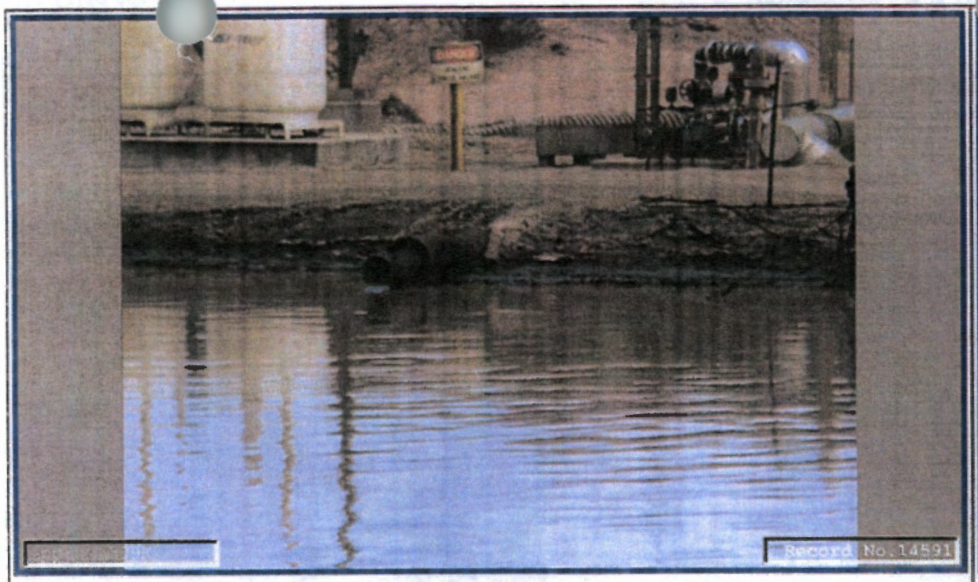
Extracted sample from AL2-4 auger.

Date: 4/10/2008 Direction: W Taken By: SS
File: evap ponds 013.jpg Job Number: 697-019-001



Extracted sample from AL2-4 auger - close up.

Date: 4/10/2008 Direction: W Taken By: SS
File: evap ponds 014.jpg Job Number: 697-019-001

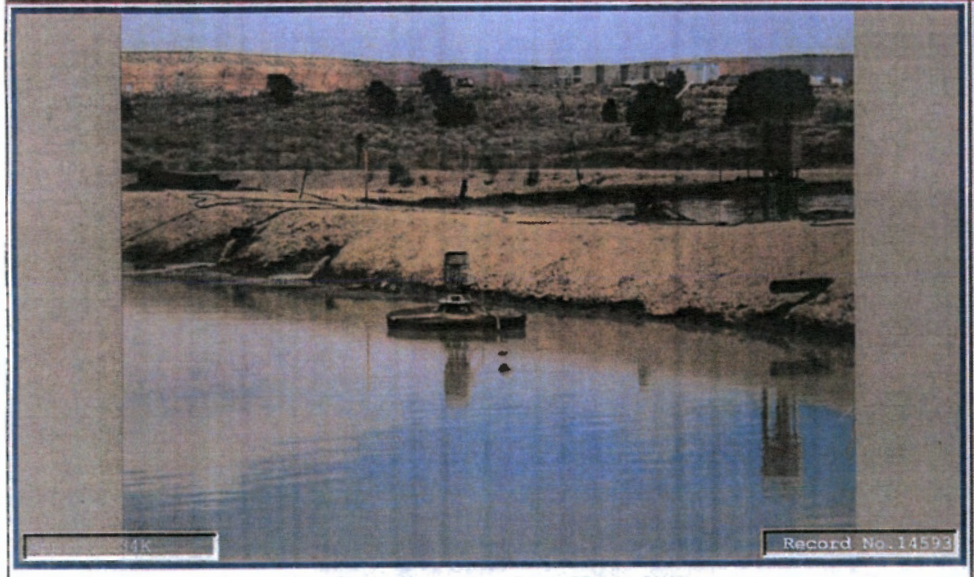


AL1 pipe - API separator water section overflow.

Date: 4/10/2008 Direction: E Taken By: SS
File: evap ponds 015.jpg Job Number: 697-019-001

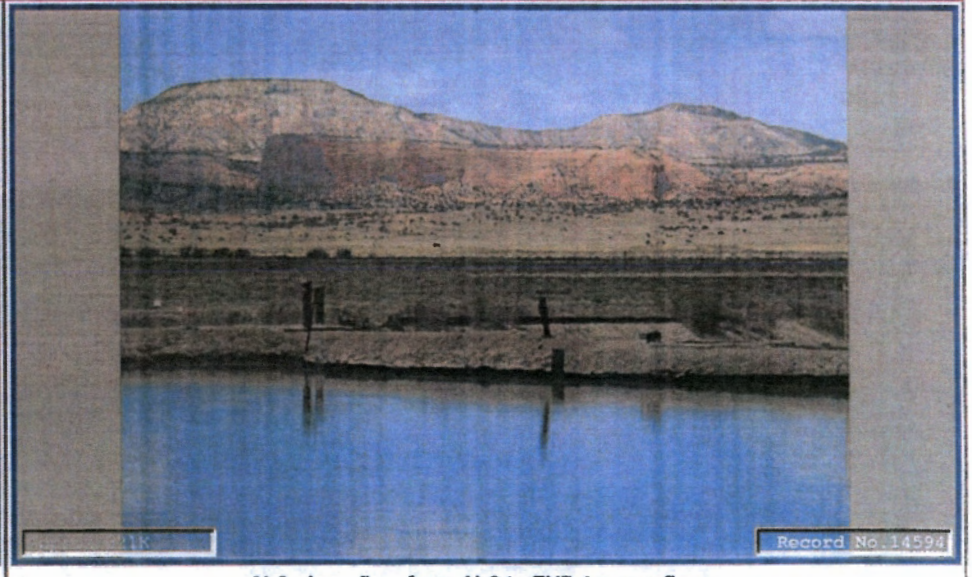
AL1 pipes - (left - pilot travel ctr effluent) (middle - benzene stripper outlet) (right low point drain).

Date: 4/10/2008 Direction: NE Taken By: SS
File: evap ponds 016.jpg Job Number: 697-019-001



AL2 pipes - (all - water from AL1 to AL2).

Date: 4/10/2008 Direction: NE Taken By: SS
File: evap ponds 017.jpg Job Number: 697-019-001



AL2 pipe - flow from AL2 to EVP 1 + overflow.

Date: 4/10/2008 Direction: N Taken By: SS
File: evap ponds 018.jpg Job Number: 697-019-001

AL1 pipes - (left - drain for bermed area) (right - from old API separator to AL1)

Date: 4/10/2008 Direction: SE Taken By: SS
File: evap ponds 019.jpg Job Number: 697-019-001

Sampling AL1-3 with Sediment Sampler.

Date: 4/10/2008 Direction: NE Taken By: SS
File: evap ponds 020.jpg Job Number: 697-019-001

AL1-1 sample in auger core displaying grey clay characteristic of the bottom of both lagoons.

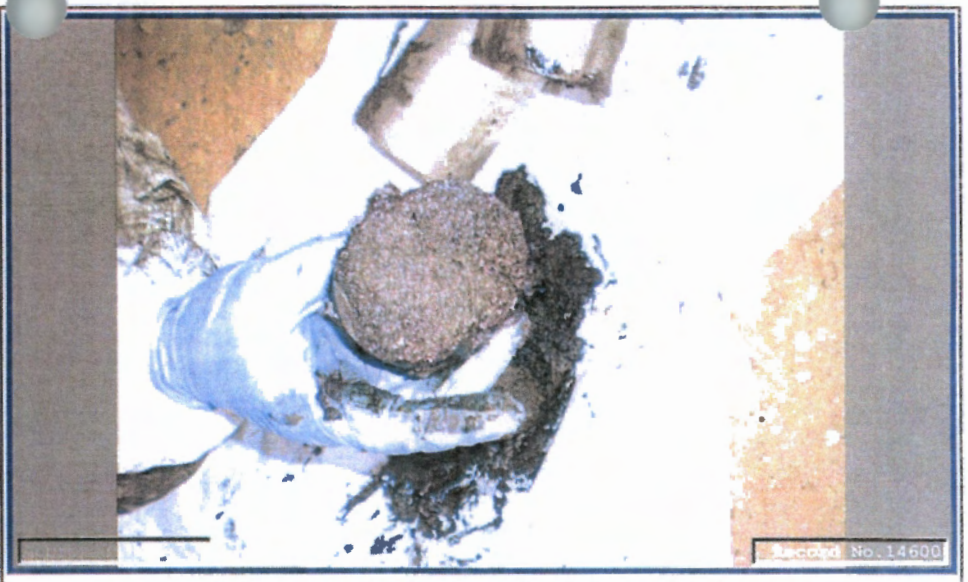
Date: 4/10/2008 Direction: N/A Taken By: SS
File: evap ponds 021.jpg Job Number: 697-019-001

same as above, better shot of the clay.

Date: 4/10/2008 Direction: N/A Taken By: SS
File: evap ponds 022.jpg Job Number: 697-019-001

AL1-1 black silty sludge characteristic of the lower portion of most HP samples.

Date: 4/10/2008 Direction: N/A Taken By: SS
File: evap ponds 023.jpg Job Number: 697-019-001



AL1-1 showing the fibrous roots and green staining.

Date: 4/10/2008 Direction: N/A Taken By: SS
File: evap ponds 024.jpg Job Number: 697-019-001

AL1-1 HP extracted onto plastic sheeting showing the difference between the clay and the sludge.

Date: 4/10/2008 Direction: N/A Taken By: SS
File: evap ponds 025.jpg Job Number: 697-019-001

APPENDIX B

SEDIMENT SAMPLE FORMS

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	AL1-1	Sample Date:	4/10/2008
Location:	Aeration Lagoon 1	Sample Time SS:	1710
Samplers:	GP/SM	Sample Time HP:	1525
Weather:	Cold, windy	Photo Numbers:	23-27

Sample Description

Sampling Equipment: Auger (HP), sediment sampler (SS)

Sample Depth SS: 4.5' - 5'

Sample Depth HP: 5.3' - 5.7'

Sample Description:

Soft Sediment:

3.5' - 4.2' Black sludge, fluid, organic odor.

4.2' to 5' Black sludge, silty, green staining, soft, organic odor.

Note: upper portion of SS lost upon extraction - very fluid.

Hard Pack Sediment: 4.8' to 5.7' Refusal at 5.7'.

4.8' to 5.3' Black sludge, silty, abundant fibrous roots, some green staining, very soft, organic odor.

5.3' to 5.7' Grey clay, some silt/fine sand, green staining, soft, plastic, slight organic odor.

Comments: Soft sediment and hard-pack measurements used for volume calculations were collected with the graduated PVC and steel pipes as described in the report. The descriptions above were taken during sediment sampling. During sampling activities, soft sediment was defined as the deepest interval that was able to be collected with the sediment sampler and hard-pack sediment was defined as the deepest interval able to be collected with the hand auger.

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	AL1-2	Sample Date:	4/10/2008
Location:	See map	Sample Time SS:	1725
Samplers:	GP/SM	Sample Time HP:	1622
Weather:	Cold, windy	Photo Numbers:	None

Sample Description

Sampling Equipment: Auger (HP), sediment sampler (SS)

Sample Depth SS: 2' to 2.5'

Sample Depth HP: 2.7' to 3.3'

Sample Description:

Soft Sediment:

0'- 1' Black sludge, fluid, flows under own weight, very soft, organic odor.

1' - 2.5' SAA, green staining, trace silt, thicker than above, stays intact under own weight.

2.5' - 3.5' SAA, silty.

Hard Pack Sediment:

2.7' - 3.3' Black sludge, silty, very soft, organic odor, stays intact under own weight, consistency thickens with depth.

3.3' - 3.5' Grey clay, silty, some sand, soft, plastic, organic odor.

Comments: Soft sediment and hard-pack measurements used for volume calculations were collected with the graduated PVC and steel pipes as described in the report. The descriptions above were taken during sediment sampling. During sampling activities, soft sediment was defined as the deepest interval that was able to be collected with the sediment sampler and hard-pack sediment was defined as the deepest interval able to be collected with the hand auger.

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	AL1-3	Sample Date:	4/10/2008
Location:	See map	Sample Time SS:	1735
Samplers:	GP/SM	Sample Time HP:	1445
Weather:	Cold, windy	Photo Numbers:	22

Sample Description

Sampling Equipment: Auger (HP), sediment sampler (SS)

Sample Depth SS: 3' - 3.5'

Sample Depth HP: 3.5' - 4'

Sample Description:

Soft Sediment:

0' - 1' Black sludge, fluid, flows under own weight, organic odor.

1' - 4' Black sludge, trace silt, slight green staining, very soft, barely intact under own weight, thicker w/depth, organic odor.

Hard Pack Sediment: 3.5' - 4.3'. Refusal at 4.3'.

3.5' - 4' Soupy black sludge, trace of fines, organic odor, somewhat fluid, very soft.

4' - 4.3' Grey clay, some silt/fine sand, soft, plastic, organic odor.

Comments: Soft sediment and hard-pack measurements used for volume calculations were collected with the graduated PVC and steel pipes as described in the report. The descriptions above were taken during sediment sampling. During sampling activities, soft sediment was defined as the deepest interval that was able to be collected with the sediment sampler and hard-pack sediment was defined as the deepest interval able to be collected with the hand auger.

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	AL1-4	Sample Date:	4/10/2008
Location:	See map	Sample Time SS:	1755
Samplers:	GP/SM	Sample Time HP:	1050
Weather:	Cold, windy	Photo Numbers:	None

Sample Description

Sampling Equipment:	Auger (HP), sediment sampler (SS)
Sample Depth SS:	5.3' - 5.8'
Sample Depth HP:	4.8' - 5.3'

Sample Description:

Soft Sediment:

5.3' - 6.5' Black silty sludge, intact under own weight, some roots, slight green tint, thicker w/depth, organic odor.

Note: upper portion of SS lost during extraction, very fluid.

Hard Pack Sediment: 4.6' - 5.4' Refusal at 5.4'.

4.6' - 4.8' Black sludge, soupy, fluid, ammonia/organic odor, very soft.

4.8' - 5.3' SAA, thicker, slight green tint.

5.3' - 5.4' Grey clay, soft, some sand/silt, plastic, same odor as above.

Comments: Soft sediment and hard-pack measurements used for volume calculations were collected with the graduated PVC and steel pipes as described in the report. The descriptions above were taken during sediment sampling. During sampling activities, soft sediment was defined as the deepest interval that was able to be collected with the sediment sampler and hard-pack sediment was defined as the deepest interval able to be collected with the hand auger.

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	AL1-5	Sample Date:	4/10/2008
Location:	See map	Sample Time SS:	800
Samplers:	GP/SM	Sample Time HP:	1020
Weather:	Cold, windy	Photo Numbers:	None

Sample Description

Sampling Equipment: Auger (HP), sediment sampler (SS)

Sample Depth SS: 0.5' - 1'

Sample Depth HP: 3' - 3.7'

Sample Description:

Soft Sediment:

0' - 3' Black silty sludge, stays intact under own weight, light green tint, very soft, some roots, organic odor.

Hard Pack Sediment: 3' - 3.8' Refusal at 3.8'.

3' - 3.7' Black sludge, stays intact under own weight, very soft, slight green tint, slight ammonia/organic odor.

3.7' - 3.8' Light grey clay, some fine sand, soft, plastic, same ammonia/organic odor.

Comments: Soft sediment and hard-pack measurements used for volume calculations were collected with the graduated PVC and steel pipes as described in the report. The descriptions above were taken during sediment sampling. During sampling activities, soft sediment was defined as the deepest interval that was able to be collected with the sediment sampler and hard-pack sediment was defined as the deepest interval able to be collected with the hand auger.

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	AL2-1	Sample Date:	4/8/2008 - 4/9/2008
Location:	See map	Sample Time SS:	1010 4/9/2008
Samplers:	GP/SM	Sample Time HP:	1105 4/8/2008
Weather:	Cold, breezy	Photo Numbers:	None

Sample Description

Sampling Equipment: Auger (HP), sediment sampler (SS)

Sample Depth SS: 5.5' - 6.5'

Sample Depth HP: 7' - 7.8'

Sample Description:

Soft Sediment:

0'- 1.5' Black sludge, soupy, fluid, organic odor.

1.5' - 6.5' Black sludge, much thicker, light green tint, soft, horse manure odor, plastic, fibrous roots, organic material, fibrous.

Hard Pack Sediment:

7' - 7.8' Black sludge, silty, some clay, roots (fuzzy), slight ammonia odor, soft, plastic.

Comments: Soft sediment and hard-pack measurements used for volume calculations were collected with the graduated PVC and steel pipes as described in the report. The descriptions above were taken during sediment sampling. During sampling activities, soft sediment was defined as the deepest interval that was able to be collected with the sediment sampler and hard-pack sediment was defined as the deepest interval able to be collected with the hand auger.

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	AL2-2	Sample Date:	4/8/2008
Location:	See map	Sample Time SS:	1555
Samplers:	GP/SM	Sample Time HP:	1515
Weather:	Cold, light wind	Photo Numbers:	3-6

Sample Description

Sampling Equipment: Auger (HP), sediment sampler (SS)

Sample Depth SS: 4' - 5'

Sample Depth HP: 6.4' - 6.8'

Sample Description:

Soft Sediment:

0'- 6' Black sludge, soupy, thicker towards bottom (~2'- 6'), slight organic odor, not ammonia.

Hard Pack Sediment: 6.4' - 7.3' Refusal at 7.3'.

6.4' - 6.8' Black sludge, very soft, soupy, some roots, slight odor, fluid, trace of green throughout.

6.8' - 7.3' Grey clay, some silt-fine sand, soft, plastic, trace gravel, roots, no odor, red in lowest inch.

Comments: BD-1 collected at 4' - 5'

Auger became stuck in mud at 7.3'. Had to pull out with truck. Bent auger extension, sample from 6.4' - 7.3' retrieved.

Soft sediment and hard-pack measurements used for volume calculations were collected with the graduated PVC and steel pipes as described in the report. The descriptions above were taken during sediment sampling. During sampling activities, soft sediment was defined as the deepest interval that was able to be collected with the sediment sampler and hard-pack sediment was defined as the deepest interval able to be collected with the hand auger.

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	AL2-3	Sample Date:	4/8/2008 - 4/9/2008
Location:	See map	Sample Time SS:	1000 (4/9/2008)
Samplers:	GP/SM	Sample Time HP:	1215 (4/8/2008)
Weather:	Warm, breezy	Photo Numbers:	3

Sample Description

Sampling Equipment: Auger (HP), sediment sampler (SS)

Sample Depth SS: 0' - 1'

Sample Depth HP: 8.8' - 9.4'

Sample Description:

Soft Sediment:

0'- 5.5' Black sludge, very soft, fluid, thicker with depth, organic odor, plastic, trace roots throughout.

Hard Pack Sediment: 8.8' - 9.6' Refusal at 9.6'.

8.8' - 9.4' Black silty sludge, somewhat soupy, slight ammonia odor, very soft, plastic.

9.4' - 9.6' Grey clay, some silt and fine sand, medium soft, plastic.

Comments: MS/MSD were collected at this location from 0' - 1'. Auger was very difficult to pull.

Soft sediment and hard-pack measurements used for volume calculations were collected with the graduated PVC and steel pipes as described in the report. The descriptions above were taken during sediment sampling. During sampling activities, soft sediment was defined as the deepest interval that was able to be collected with the sediment sampler and hard-pack sediment was defined as the deepest interval able to be collected with the hand auger.

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	AL2-4	Sample Date:	4/8/2008 - 4/9/2008
Location:	See map	Sample Time SS:	1025 (4/9/2008)
Samplers:	GP/SM	Sample Time HP:	1015 (4/8/2008)
Weather:	Cool, breezy	Photo Numbers:	12-15

Sample Description

Sampling Equipment: Auger (HP), sediment sampler (SS)

Sample Depth SS: 2.5' - 3.5'

Sample Depth HP: 8' - 8.8'

Sample Description:

Soft Sediment:

0'- 1.5' Black sludge, very fluid, very soft, organic odor.

1.5' - 6.5' Black sludge, soft, but slightly thicker than other AL2 locations, organic odor, plastic.

Hard Pack Sediment:

8' - 8.8' Black sludge w/some silt, soft, plastic, ammonia odor, some fibrous roots.

Comments: BD-2 collected at 2.5' - 3.5'.

Soft sediment and hard-pack measurements used for volume calculations were collected with the graduated PVC and steel pipes as described in the report. The descriptions above were taken during sediment sampling. During sampling activities, soft sediment was defined as the deepest interval that was able to be collected with the sediment sampler and hard-pack sediment was defined as the deepest interval able to be collected with the hand auger.

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	AL2-5	Sample Date:	4/9/2008
Location:	See map	Sample Time SS:	940
Samplers:	GP/SM	Sample Time HP:	820
Weather:	Cold, windy	Photo Numbers:	None

Sample Description

Sampling Equipment: Auger (HP), sediment sampler (SS)

Sample Depth SS: 0' - 1'

Sample Depth HP: 7.2' - 7.8'

Sample Description:

Soft Sediment:

0'-1.5' Black sludge, very soft, fluid, organic odor. Lower 5' of soft sediment lost during retrieval.

Hard Pack Sediment:

7.2' - 7.8' Black sludge, trace fines, slight odor, very soft, plastic.

7.8' - 8' Reddish-grey clay, sandy, fine grained, soft, plastic, no odor.

Comments: Soft sediment and hard-pack measurements used for volume calculations were collected with the graduated PVC and steel pipes as described in the report. The descriptions above were taken during sediment sampling. During sampling activities, soft sediment was defined as the deepest interval that was able to be collected with the sediment sampler and hard-pack sediment was defined as the deepest interval able to be collected with the hand auger.

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	EP1-1	Sample Date:	4/9/2008
Location:	See map	Sample Time SS:	1825
Samplers:	GP/SM	Sample Time HP:	X
Weather:	Cold, windy	Photo Numbers:	None

Sample Description

Sampling Equipment:	Sediment sampler
Sample Depth SS:	0.8' - 1.3'
Sample Depth HP:	X

Sample Description:

Soft Sediment:

0' - 0.8' Soupy black sludge, flows under own weight, slight green tint, strong manure smell, too soupy to sample.

0.8' - 1.6' Black sludge, thicker than above, still soupy, very soft, strong manure odor, almost fluid, green tint.

1.6' - 2.2' Black sludge, thicker than above, soft, clayey, less odor, no green, some silt/sand in lowest 2".

Hard Pack Sediment:

None.

Comments:

There was no hard-pack detected in Evaporation Pond 1. Sediment measurements were collected with a graduated steel pole.

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	EP1-2	Sample Date:	4/9/2008
Location:	See map	Sample Time SS:	1845
Samplers:	GP/SM	Sample Time HP:	X
Weather:	Cold, breezy	Photo Numbers:	None

Sample Description

Sampling Equipment:	Sediment sampler
Sample Depth SS:	0.8' - 1.3'
Sample Depth HP:	X

Sample Description:

Soft Sediment:

0' - 0.8' Soupy black sludge, too thin to sample, flows under own weight, slight organic odor.

0.8' - 1.6' Black sludge, thicker than above, stays intact under own weight, some roots, slight odor,

trace clayey, silty sand in lower 2", very soft.

Hard Pack Sediment:

None

Comments:

There was no hard-pack detected in Evaporation Pond 1. Sediment measurements were collected with a graduated

steel pole.

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	EP1-3	Sample Date:	4/9/2008
Location:	See map	Sample Time SS:	1815
Samplers:	GP/SM	Sample Time HP:	X
Weather:	Cold, very windy	Photo Numbers:	None

Sample Description

Sampling Equipment:	Sediment sampler
Sample Depth SS:	1.2' - 1.7'
Sample Depth HP:	X

Sample Description:

Soft Sediment:

0' - 1.2' Soupy black sludge, fluid, organic odor, slightly thicker w/depth, flows under own weight

1.2' - 1.7' Black sludge, thicker than above, cohesive, remains intact under own weight, very soft, slightly clayey, organic odor, sandy & silty in lowest inch.

Hard Pack Sediment:

None.

Comments:

There was no hard-pack detected in Evaporation Pond 1. Sediment measurements were collected with a graduated steel pole.

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	EP1-4	Sample Date:	4/9/2008
Location:	See map	Sample Time SS:	1800
Samplers:	GP/SM	Sample Time HP:	X
Weather:	Cold, windy	Photo Numbers:	None

Sample Description

Sampling Equipment:	Sediment sampler
Sample Depth SS:	0.8' - 1.3'
Sample Depth HP:	X

Sample Description:

Soft Sediment:

0' - 0.7' Soupy black sludge, fluid, too fluid in sample, organic odor, very soft.

0.7' - 1.3' Black sludge, very soft, cohesive, organic odor, slightly clayey.

1.3' - 1.5' SAA, some silt, sand, and gravel.

Hard Pack Sediment:

None

Comments:

There was no hard-pack detected in Evaporation Pond 1. Sediment measurements were collected with a graduated steel pole.

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	EP1-5	Sample Date:	4/9/2008
Location:	See map	Sample Time SS:	1745
Samplers:	GP/SM	Sample Time HP:	X
Weather:	Cold, windy	Photo Numbers:	None

Sample Description

Sampling Equipment:	Sediment sampler
Sample Depth SS:	0.8' - 1.3'
Sample Depth HP:	X

Sample Description:

Soft Sediment:

0' - 0.3' Black sludge, soupy, fluid, organic odor, very soft.

0.3' - 1.3' Black sludge, thicker, cohesive, organic odor, very soft, slightly clayey.

Hard Pack Sediment:

None

Comments:

There was no hard-pack detected in Evaporation Pond 1. Sediment measurements were collected with a graduated steel pole.

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	EP1-6	Sample Date:	4/9/2008
Location:	See map	Sample Time SS:	1510
Samplers:	GP/SM	Sample Time HP:	X
Weather:	Cold, windy	Photo Numbers:	None

Sample Description

Sampling Equipment:	Sediment sampler
Sample Depth SS:	0.5' - 1.0'
Sample Depth HP:	X

Sample Description:

Soft Sediment:

0' - 0.5' Soupy black sludge, very thin, too thin to sample, fluid, slight organic odor.

0.5' - 1.3' Soupy black sludge, slightly thicker than above, still flows under own weight, just thick enough to sample, slight organic odor.

1.3' - 1.5' Black sludge, clayey, silty, some fine sand, stays intact under own weight, soft, plastic, slight organic odor.

Hard Pack Sediment:

None

Comments:

There was no hard-pack detected in Evaporation Pond 1. Sediment measurements were collected with a graduated steel pole.

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	EP1-7	Sample Date:	4/9/2008
Location:	See map	Sample Time SS:	1935
Samplers:	GP/SM	Sample Time HP:	X
Weather:	Cold, very windy	Photo Numbers:	None

Sample Description

Sampling Equipment:	Sediment sampler
Sample Depth SS:	0.7' - 1.2'
Sample Depth HP:	X

Sample Description:

Soft Sediment:

0' - 0.7' Extremely soupy black sludge, very fluid, too thin to sample, slight organic odor.

0.7' - 1.2' Soupy black sludge, flows under own weight, slightly thicker than above, slight organic odor, no fines or sand.

Hard Pack Sediment:

None

Comments: May have lost a few inches out of core on retrieval.

There was no hard-pack detected in Evaporation Pond 1. Sediment measurements were collected with a graduated steel pole.

Sediment Sampling Field Form

Project Name:	Gallup Refinery	Sample Media:	Sediment
Sample ID:	EP1-8	Sample Date:	4/9/2008
Location:	See map	Sample Time SS:	1917
Samplers:	GP/SM	Sample Time HP:	X
Weather:	Cold, very windy	Photo Numbers:	None

Sample Description

Sampling Equipment:	Sediment sampler
Sample Depth SS:	1.2' - 1.7'
Sample Depth HP:	X

Sample Description:

Soft Sediment:

0' - 0.8' Soupy black sludge, very thin, flows readily under own weight, too thin to sample, slight organic odor.

0.8' - 1.7' Soupy black sludge, slightly thicker than above, still flows under own weight, no fines or sand in lower portions as with most other EP1 samples, slight organic odor.

Hard Pack Sediment:

None

Comments:

There was no hard-pack detected in Evaporation Pond 1. Sediment measurements were collected with a graduated steel pole.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Tuesday, April 29, 2008

Regina Allen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-3833
FAX (505) 722-0210

RE: Evaporation Pond/Aeration Lagoon

Order No.: 0804138

Dear Regina Allen:

Hall Environmental Analysis Laboratory, Inc. received 34 sample(s) on 4/11/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001

Hall Environmental Analysis Laboratory, Inc. Date: *29-Apr-08*

CLIENT: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon
Lab Order: 0804138

CASE NARRATIVE

"S" flags denote that the surrogate was not recoverable, or low, due to sample dilution and/or matrix interferences.

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-3
Lab Order:	0804138	**Collection Date:**	4/9/2008 6:15:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	110000	5000		mg/Kg	50	4/16/2008 9:43:15 PM
Motor Oil Range Organics (MRO)	ND	25000		mg/Kg	50	4/16/2008 9:43:15 PM
Surr: DNOP	0	61.7-135	S	%REC	50	4/16/2008 9:43:15 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/18/2008 4:08:55 AM
Surr: BFB	100	84-138		%REC	20	4/18/2008 4:08:55 AM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	5.1	1.6		mg/Kg	50	4/16/2008 4:31:44 PM
EPA METHOD 6010B: SOIL METALS						Analyst: NMO
Arsenic	6.5	2.5		mg/Kg	1	4/16/2008 8:17:06 AM
Barium	220	1.0		mg/Kg	10	4/16/2008 9:24:16 AM
Cadmium	0.43	0.10		mg/Kg	1	4/16/2008 8:17:06 AM
Chromium	13	0.30		mg/Kg	1	4/16/2008 8:17:06 AM
Lead	15	0.25		mg/Kg	1	4/16/2008 8:17:06 AM
Selenium	ND	25		mg/Kg	10	4/16/2008 9:24:16 AM
Silver	ND	0.25		mg/Kg	1	4/16/2008 8:17:06 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	30		mg/Kg	1	4/17/2008
Acenaphthylene	ND	30		mg/Kg	1	4/17/2008
Aniline	ND	30		mg/Kg	1	4/17/2008
Anthracene	ND	30		mg/Kg	1	4/17/2008
Azobenzene	ND	30		mg/Kg	1	4/17/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/17/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/17/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/17/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzoic acid	ND	50		mg/Kg	1	4/17/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/17/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/17/2008
Carbazole	ND	30		mg/Kg	1	4/17/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/17/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/17/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-3
Lab Order:	0804138	**Collection Date:**	4/9/2008 6:15:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/17/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/17/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Chrysene	ND	30		mg/Kg	1	4/17/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/17/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/17/2008
Dibenzofuran	ND	30		mg/Kg	1	4/17/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/17/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/17/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/17/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
Fluoranthene	ND	38		mg/Kg	1	4/17/2008
Fluorene	47	30		mg/Kg	1	4/17/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/17/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/17/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/17/2008
Hexachloroethane	ND	30		mg/Kg	1	4/17/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/17/2008
Isophorone	ND	75		mg/Kg	1	4/17/2008
2-Methylnaphthalene	140	38		mg/Kg	1	4/17/2008
2-Methylphenol	ND	75		mg/Kg	1	4/17/2008
3+4-Methylphenol	60	30		mg/Kg	1	4/17/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/17/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/17/2008
Naphthalene	ND	30		mg/Kg	1	4/17/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/17/2008
Nitrobenzene	ND	75		mg/Kg	1	4/17/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/17/2008
Phenanthrene	130	30		mg/Kg	1	4/17/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-3
Lab Order:	0804138	**Collection Date:**	4/9/2008 6:15:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/17/2008
Pyrene	ND	30		mg/Kg	1	4/17/2008
Pyridine	ND	75		mg/Kg	1	4/17/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/17/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
Surr: 2,4,6-Tribromophenol	53.6	35.5-141		%REC	1	4/17/2008
Surr: 2-Fluorobiphenyl	65.7	30.4-128		%REC	1	4/17/2008
Surr: 2-Fluorophenol	86.3	28.1-129		%REC	1	4/17/2008
Surr: 4-Terphenyl-d14	41.9	34.6-151		%REC	1	4/17/2008
Surr: Nitrobenzene-d5	81.0	26.5-122		%REC	1	4/17/2008
Surr: Phenol-d5	70.0	37.6-118		%REC	1	4/17/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
Toluene	0.68	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
Ethylbenzene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
1,2,4-Trimethylbenzene	1.2	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
Naphthalene	1.3	1.0		mg/Kg	10	4/19/2008 1:50:50 PM
1-Methylnaphthalene	4.9	2.0		mg/Kg	10	4/19/2008 1:50:50 PM
2-Methylnaphthalene	6.8	2.0		mg/Kg	10	4/19/2008 1:50:50 PM
Acetone	ND	7.5		mg/Kg	10	4/19/2008 1:50:50 PM
Bromobenzene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
Bromoform	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
Bromomethane	ND	1.0		mg/Kg	10	4/19/2008 1:50:50 PM
2-Butanone	ND	5.0		mg/Kg	10	4/19/2008 1:50:50 PM
Carbon disulfide	ND	5.0		mg/Kg	10	4/19/2008 1:50:50 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/19/2008 1:50:50 PM
Chlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
Chloroethane	ND	1.0		mg/Kg	10	4/19/2008 1:50:50 PM
Chloroform	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
Chloromethane	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/19/2008 1:50:50 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-3
Lab Order:	0804138	**Collection Date:**	4/9/2008 6:15:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
Dibromomethane	ND	1.0		mg/Kg	10	4/19/2008 1:50:50 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/19/2008 1:50:50 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/19/2008 1:50:50 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/19/2008 1:50:50 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/19/2008 1:50:50 PM
2-Hexanone	ND	5.0		mg/Kg	10	4/19/2008 1:50:50 PM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/19/2008 1:50:50 PM
Methylene chloride	ND	1.5		mg/Kg	10	4/19/2008 1:50:50 PM
n-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
Styrene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/19/2008 1:50:50 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/19/2008 1:50:50 PM
Vinyl chloride	ND	0.50		mg/Kg	10	4/19/2008 1:50:50 PM
Xylenes, Total	1.1	1.0		mg/Kg	10	4/19/2008 1:50:50 PM
Surr: 1,2-Dichloroethane-d4	94.3	68.7-122		%REC	10	4/19/2008 1:50:50 PM
Surr: 4-Bromofluorobenzene	89.3	79.3-126		%REC	10	4/19/2008 1:50:50 PM
Surr: Dibromofluoromethane	79.0	64.4-119		%REC	10	4/19/2008 1:50:50 PM
Surr: Toluene-d8	101	86.5-121		%REC	10	4/19/2008 1:50:50 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-4
Lab Order:	0804138	**Collection Date:**	4/9/2008 6:00:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	130000	5000		mg/Kg	50	4/16/2008 10:17:20 PM
Motor Oil Range Organics (MRO)	27000	25000		mg/Kg	50	4/16/2008 10:17:20 PM
Surr: DNOP	0	61.7-135	S	%REC	50	4/16/2008 10:17:20 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/18/2008 4:38:57 AM
Surr: BFB	111	84-138		%REC	20	4/18/2008 4:38:57 AM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	9.6	1.6		mg/Kg	50	4/18/2008 4:33:14 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	26	2.5		mg/Kg	1	4/21/2008 9:26:55 AM
Barium	330	1.0		mg/Kg	10	4/21/2008 11:36:15 AM
Cadmium	6.4	0.10		mg/Kg	1	4/21/2008 9:26:55 AM
Chromium	41	0.30		mg/Kg	1	4/21/2008 9:26:55 AM
Lead	39	0.25		mg/Kg	1	4/28/2008 7:48:13 AM
Selenium	ND	25		mg/Kg	10	4/21/2008 11:36:15 AM
Silver	ND	0.25		mg/Kg	1	4/21/2008 9:26:55 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/17/2008
Acenaphthylene	ND	30		mg/Kg	1	4/17/2008
Aniline	ND	30		mg/Kg	1	4/17/2008
Anthracene	ND	30		mg/Kg	1	4/17/2008
Azobenzene	ND	30		mg/Kg	1	4/17/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/17/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/17/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/17/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzoic acid	ND	50		mg/Kg	1	4/17/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/17/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/17/2008
Carbazole	ND	30		mg/Kg	1	4/17/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/17/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/17/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-4
Lab Order:	0804138	**Collection Date:**	4/9/2008 6:00:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/17/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/17/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Chrysene	ND	30		mg/Kg	1	4/17/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/17/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/17/2008
Dibenzofuran	ND	30		mg/Kg	1	4/17/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/17/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/17/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/17/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
Fluoranthene	ND	38		mg/Kg	1	4/17/2008
Fluorene	59	30		mg/Kg	1	4/17/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/17/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/17/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/17/2008
Hexachloroethane	ND	30		mg/Kg	1	4/17/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/17/2008
Isophorone	ND	75		mg/Kg	1	4/17/2008
2-Methylnaphthalene	180	38		mg/Kg	1	4/17/2008
2-Methylphenol	ND	75		mg/Kg	1	4/17/2008
3+4-Methylphenol	86	30		mg/Kg	1	4/17/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/17/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/17/2008
Naphthalene	ND	30		mg/Kg	1	4/17/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/17/2008
Nitrobenzene	ND	75		mg/Kg	1	4/17/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/17/2008
Phenanthrene	210	30		mg/Kg	1	4/17/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-4
Lab Order:	0804138	**Collection Date:**	4/9/2008 6:00:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/17/2008
Pyrene	40	30		mg/Kg	1	4/17/2008
Pyridine	ND	75		mg/Kg	1	4/17/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/17/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
Surr: 2,4,6-Tribromophenol	37.2	35.5-141		%REC	1	4/17/2008
Surr: 2-Fluorobiphenyl	72.3	30.4-128		%REC	1	4/17/2008
Surr: 2-Fluorophenol	92.1	28.1-129		%REC	1	4/17/2008
Surr: 4-Terphenyl-d14	41.5	34.6-151		%REC	1	4/17/2008
Surr: Nitrobenzene-d5	86.2	26.5-122		%REC	1	4/17/2008
Surr: Phenol-d5	74.8	37.6-118		%REC	1	4/17/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
Toluene	0.65	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
Ethylbenzene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
1,2,4-Trimethylbenzene	1.3	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
Naphthalene	1.7	1.0		mg/Kg	10	4/19/2008 2:26:21 PM
1-Methylnaphthalene	6.0	2.0		mg/Kg	10	4/19/2008 2:26:21 PM
2-Methylnaphthalene	7.6	2.0		mg/Kg	10	4/19/2008 2:26:21 PM
Acetone	ND	7.5		mg/Kg	10	4/19/2008 2:26:21 PM
Bromobenzene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
Bromoform	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
Bromomethane	ND	1.0		mg/Kg	10	4/19/2008 2:26:21 PM
2-Butanone	ND	5.0		mg/Kg	10	4/19/2008 2:26:21 PM
Carbon disulfide	ND	5.0		mg/Kg	10	4/19/2008 2:26:21 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/19/2008 2:26:21 PM
Chlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
Chloroethane	ND	1.0		mg/Kg	10	4/19/2008 2:26:21 PM
Chloroform	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
Chloromethane	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/19/2008 2:26:21 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-4
Lab Order:	0804138	**Collection Date:**	4/9/2008 6:00:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
Dibromomethane	ND	1.0		mg/Kg	10	4/19/2008 2:26:21 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/19/2008 2:26:21 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/19/2008 2:26:21 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/19/2008 2:26:21 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/19/2008 2:26:21 PM
2-Hexanone	ND	5.0		mg/Kg	10	4/19/2008 2:26:21 PM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/19/2008 2:26:21 PM
Methylene chloride	ND	1.5		mg/Kg	10	4/19/2008 2:26:21 PM
n-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
Styrene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/19/2008 2:26:21 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/19/2008 2:26:21 PM
Vinyl chloride	ND	0.50		mg/Kg	10	4/19/2008 2:26:21 PM
Xylenes, Total	1.2	1.0		mg/Kg	10	4/19/2008 2:26:21 PM
Surr: 1,2-Dichloroethane-d4	96.7	68.7-122		%REC	10	4/19/2008 2:26:21 PM
Surr: 4-Bromofluorobenzene	83.3	79.3-126		%REC	10	4/19/2008 2:26:21 PM
Surr: Dibromofluoromethane	86.8	64.4-119		%REC	10	4/19/2008 2:26:21 PM
Surr: Toluene-d8	96.4	86.5-121		%REC	10	4/19/2008 2:26:21 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0804138
Project: Evaporation Pond/Aeration Lagoon
Lab ID: 0804138-03

Client Sample ID: EPI-5
Collection Date: 4/9/2008 5:45:00 PM
Date Received: 4/11/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	120000	5000		mg/Kg	50	4/17/2008 12:33:47 AM
Motor Oil Range Organics (MRO)	ND	25000		mg/Kg	50	4/17/2008 12:33:47 AM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 12:33:47 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/18/2008 6:21:52 PM
Surr: BFB	110	84-138		%REC	20	4/18/2008 6:21:52 PM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	6.0	1.6		mg/Kg	50	4/18/2008 4:34:45 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	23	2.5		mg/Kg	1	4/21/2008 9:29:36 AM
Barium	150	1.0		mg/Kg	10	4/21/2008 11:38:54 AM
Cadmium	0.97	0.10		mg/Kg	1	4/21/2008 9:29:36 AM
Chromium	23	0.30		mg/Kg	1	4/21/2008 9:29:36 AM
Lead	22	0.25		mg/Kg	1	4/28/2008 7:50:47 AM
Selenium	ND	25		mg/Kg	10	4/21/2008 11:38:54 AM
Silver	ND	0.25		mg/Kg	1	4/21/2008 9:29:36 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/17/2008
Acenaphthylene	ND	30		mg/Kg	1	4/17/2008
Aniline	ND	30		mg/Kg	1	4/17/2008
Anthracene	ND	30		mg/Kg	1	4/17/2008
Azobenzene	ND	30		mg/Kg	1	4/17/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/17/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/17/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/17/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzoic acid	ND	50		mg/Kg	1	4/17/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/17/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/17/2008
Carbazole	ND	30		mg/Kg	1	4/17/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/17/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/17/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-5
Lab Order:	0804138	**Collection Date:**	4/9/2008 5:45:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-03	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/17/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/17/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Chrysene	57	30		mg/Kg	1	4/17/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/17/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/17/2008
Dibenzofuran	ND	30		mg/Kg	1	4/17/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/17/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/17/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/17/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
Fluoranthene	ND	38		mg/Kg	1	4/17/2008
Fluorene	42	30		mg/Kg	1	4/17/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/17/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/17/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/17/2008
Hexachloroethane	ND	30		mg/Kg	1	4/17/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/17/2008
Isophorone	ND	75		mg/Kg	1	4/17/2008
2-Methylnaphthalene	130	38		mg/Kg	1	4/17/2008
2-Methylphenol	ND	75		mg/Kg	1	4/17/2008
3+4-Methylphenol	140	30		mg/Kg	1	4/17/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/17/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/17/2008
Naphthalene	ND	30		mg/Kg	1	4/17/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/17/2008
Nitrobenzene	ND	75		mg/Kg	1	4/17/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/17/2008
Phenanthrene	150	30		mg/Kg	1	4/17/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-5
Lab Order:	0804138	**Collection Date:**	4/9/2008 5:45:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-03	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/17/2008
Pyrene	48	30		mg/Kg	1	4/17/2008
Pyridine	ND	75		mg/Kg	1	4/17/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/17/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
Surr: 2,4,6-Tribromophenol	57.2	35.5-141		%REC	1	4/17/2008
Surr: 2-Fluorobiphenyl	90.2	30.4-128		%REC	1	4/17/2008
Surr: 2-Fluorophenol	108	28.1-129		%REC	1	4/17/2008
Surr: 4-Terphenyl-d14	56.5	34.6-151		%REC	1	4/17/2008
Surr: Nitrobenzene-d5	103	28.5-122		%REC	1	4/17/2008
Surr: Phenol-d5	87.3	37.6-118		%REC	1	4/17/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
Toluene	0.69	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
Ethylbenzene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
1,2,4-Trimethylbenzene	1.5	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
Naphthalene	1.9	1.0		mg/Kg	10	4/19/2008 3:01:46 PM
1-Methylnaphthalene	7.1	2.0		mg/Kg	10	4/19/2008 3:01:46 PM
2-Methylnaphthalene	10	2.0		mg/Kg	10	4/19/2008 3:01:46 PM
Acetone	ND	7.5		mg/Kg	10	4/19/2008 3:01:46 PM
Bromobenzene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
Bromoform	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
Bromomethane	ND	1.0		mg/Kg	10	4/19/2008 3:01:46 PM
2-Butanone	ND	5.0		mg/Kg	10	4/19/2008 3:01:46 PM
Carbon disulfide	ND	5.0		mg/Kg	10	4/19/2008 3:01:46 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/19/2008 3:01:46 PM
Chlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
Chloroethane	ND	1.0		mg/Kg	10	4/19/2008 3:01:46 PM
Chloroform	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
Chloromethane	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/19/2008 3:01:46 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-5
Lab Order:	0804138	**Collection Date:**	4/9/2008 5:45:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-03	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
Dibromomethane	ND	1.0		mg/Kg	10	4/19/2008 3:01:46 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/19/2008 3:01:46 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/19/2008 3:01:46 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/19/2008 3:01:46 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/19/2008 3:01:46 PM
2-Hexanone	ND	5.0		mg/Kg	10	4/19/2008 3:01:46 PM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/19/2008 3:01:46 PM
Methylene chloride	ND	1.5		mg/Kg	10	4/19/2008 3:01:46 PM
n-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
Styrene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/19/2008 3:01:46 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/19/2008 3:01:46 PM
Vinyl chloride	ND	0.50		mg/Kg	10	4/19/2008 3:01:46 PM
Xylenes, Total	1.7	1.0		mg/Kg	10	4/19/2008 3:01:46 PM
Surr: 1,2-Dichloroethane-d4	98.2	68.7-122		%REC	10	4/19/2008 3:01:46 PM
Surr: 4-Bromofluorobenzene	90.9	79.3-126		%REC	10	4/19/2008 3:01:46 PM
Surr: Dibromofluoromethane	93.2	64.4-119		%REC	10	4/19/2008 3:01:46 PM
Surr: Toluene-d8	96.1	86.5-121		%REC	10	4/19/2008 3:01:46 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-1-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 3:25:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-04	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	7.5		mg/Kg	1	4/17/2008
2-Chlorophenol	ND	6.0		mg/Kg	1	4/17/2008
4-Chlorophenyl phenyl ether	ND	6.0		mg/Kg	1	4/17/2008
Chrysene	ND	6.0		mg/Kg	1	4/17/2008
Di-n-butyl phthalate	ND	15		mg/Kg	1	4/17/2008
Di-n-octyl phthalate	ND	6.0		mg/Kg	1	4/17/2008
Dibenz(a,h)anthracene	ND	6.0		mg/Kg	1	4/17/2008
Dibenzofuran	ND	6.0		mg/Kg	1	4/17/2008
1,2-Dichlorobenzene	ND	6.0		mg/Kg	1	4/17/2008
1,3-Dichlorobenzene	ND	6.0		mg/Kg	1	4/17/2008
1,4-Dichlorobenzene	ND	6.0		mg/Kg	1	4/17/2008
3,3'-Dichlorobenzidine	ND	7.5		mg/Kg	1	4/17/2008
Diethyl phthalate	ND	6.0		mg/Kg	1	4/17/2008
Dimethyl phthalate	ND	6.0		mg/Kg	1	4/17/2008
2,4-Dichlorophenol	ND	6.0		mg/Kg	1	4/17/2008
2,4-Dimethylphenol	ND	9.0		mg/Kg	1	4/17/2008
4,6-Dinitro-2-methylphenol	ND	15		mg/Kg	1	4/17/2008
2,4-Dinitrophenol	ND	15		mg/Kg	1	4/17/2008
2,4-Dinitrotoluene	ND	15		mg/Kg	1	4/17/2008
2,6-Dinitrotoluene	ND	15		mg/Kg	1	4/17/2008
Fluoranthene	ND	7.5		mg/Kg	1	4/17/2008
Fluorene	ND	6.0		mg/Kg	1	4/17/2008
Hexachlorobenzene	ND	6.0		mg/Kg	1	4/17/2008
Hexachlorobutadiene	ND	6.0		mg/Kg	1	4/17/2008
Hexachlorocyclopentadiene	ND	6.0		mg/Kg	1	4/17/2008
Hexachloroethane	ND	6.0		mg/Kg	1	4/17/2008
Indeno(1,2,3-cd)pyrene	ND	7.5		mg/Kg	1	4/17/2008
Isophorone	ND	15		mg/Kg	1	4/17/2008
2-Methylnaphthalene	23	7.5		mg/Kg	1	4/17/2008
2-Methylphenol	ND	15		mg/Kg	1	4/17/2008
3+4-Methylphenol	6.2	6.0		mg/Kg	1	4/17/2008
N-Nitrosodi-n-propylamine	ND	6.0		mg/Kg	1	4/17/2008
N-Nitrosodiphenylamine	ND	6.0		mg/Kg	1	4/17/2008
Naphthalene	6.7	6.0		mg/Kg	1	4/17/2008
2-Nitroaniline	ND	6.0		mg/Kg	1	4/17/2008
3-Nitroaniline	ND	6.0		mg/Kg	1	4/17/2008
4-Nitroaniline	ND	7.5		mg/Kg	1	4/17/2008
Nitrobenzene	ND	15		mg/Kg	1	4/17/2008
2-Nitrophenol	ND	6.0		mg/Kg	1	4/17/2008
4-Nitrophenol	ND	6.0		mg/Kg	1	4/17/2008
Pentachlorophenol	ND	9.9		mg/Kg	1	4/17/2008
Phenanthrene	8.4	6.0		mg/Kg	1	4/17/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-1-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 3:25:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-04	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	6.7	6.0		mg/Kg	1	4/17/2008
Pyrene	ND	6.0		mg/Kg	1	4/17/2008
Pyridine	ND	15		mg/Kg	1	4/17/2008
1,2,4-Trichlorobenzene	ND	6.0		mg/Kg	1	4/17/2008
2,4,5-Trichlorophenol	ND	6.0		mg/Kg	1	4/17/2008
2,4,6-Trichlorophenol	ND	6.0		mg/Kg	1	4/17/2008
Surr: 2,4,6-Tribromophenol	74.0	35.5-141		%REC	1	4/17/2008
Surr: 2-Fluorobiphenyl	89.4	30.4-128		%REC	1	4/17/2008
Surr: 2-Fluorophenol	95.4	28.1-129		%REC	1	4/17/2008
Surr: 4-Terphenyl-d14	53.7	34.8-151		%REC	1	4/17/2008
Surr: Nitrobenzene-d5	91.2	26.5-122		%REC	1	4/17/2008
Surr: Phenol-d5	79.0	37.6-116		%REC	1	4/17/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	1.2	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
Toluene	6.8	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
Ethylbenzene	2.9	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
1,2,4-Trimethylbenzene	12	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
1,3,5-Trimethylbenzene	3.3	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
Naphthalene	7.2	1.0		mg/Kg	10	4/19/2008 3:37:14 PM
1-Methylnaphthalene	15	2.0		mg/Kg	10	4/19/2008 3:37:14 PM
2-Methylnaphthalene	22	2.0		mg/Kg	10	4/19/2008 3:37:14 PM
Acetone	ND	7.5		mg/Kg	10	4/19/2008 3:37:14 PM
Bromobenzene	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
Bromoform	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
Bromomethane	ND	1.0		mg/Kg	10	4/19/2008 3:37:14 PM
2-Butanone	ND	5.0		mg/Kg	10	4/19/2008 3:37:14 PM
Carbon disulfide	ND	5.0		mg/Kg	10	4/19/2008 3:37:14 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/19/2008 3:37:14 PM
Chlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
Chloroethane	ND	1.0		mg/Kg	10	4/19/2008 3:37:14 PM
Chloroform	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
Chloromethane	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/19/2008 3:37:14 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-1-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 3:25:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-04	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
Dibromomethane	ND	1.0		mg/Kg	10	4/19/2008 3:37:14 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/19/2008 3:37:14 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/19/2008 3:37:14 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/19/2008 3:37:14 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/19/2008 3:37:14 PM
2-Hexanone	ND	5.0		mg/Kg	10	4/19/2008 3:37:14 PM
Isopropylbenzene	0.72	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
4-Isopropyltoluene	0.54	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/19/2008 3:37:14 PM
Methylene chloride	ND	1.5		mg/Kg	10	4/19/2008 3:37:14 PM
n-Butylbenzene	2.7	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
n-Propylbenzene	1.7	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
sec-Butylbenzene	0.96	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
Styrene	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/19/2008 3:37:14 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/19/2008 3:37:14 PM
Vinyl chloride	ND	0.50		mg/Kg	10	4/19/2008 3:37:14 PM
Xylenes, Total	18	1.0		mg/Kg	10	4/19/2008 3:37:14 PM
Surr: 1,2-Dichloroethane-d4	99.0	68.7-122		%REC	10	4/19/2008 3:37:14 PM
Surr: 4-Bromofluorobenzene	91.2	79.3-126		%REC	10	4/19/2008 3:37:14 PM
Surr: Dibromofluoromethane	88.5	64.4-119		%REC	10	4/19/2008 3:37:14 PM
Surr: Toluene-d8	97.1	86.5-121		%REC	10	4/19/2008 3:37:14 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-2-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 4:22:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-05	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	200000	5000		mg/Kg	50	4/17/2008 1:41:58 AM
Motor Oil Range Organics (MRO)	37000	25000		mg/Kg	50	4/17/2008 1:41:58 AM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 1:41:58 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	260	100		mg/Kg	20	4/18/2008 7:22:04 PM
Surr: BFB	109	84-138		%REC	20	4/18/2008 7:22:04 PM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	5.0	1.6		mg/Kg	50	4/18/2008 4:37:48 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	32	2.5		mg/Kg	1	4/21/2008 9:34:53 AM
Barium	350	1.0		mg/Kg	10	4/21/2008 11:44:13 AM
Cadmium	1.4	0.10		mg/Kg	1	4/21/2008 9:34:53 AM
Chromium	51	3.0		mg/Kg	10	4/21/2008 11:44:13 AM
Lead	110	2.5		mg/Kg	10	4/28/2008 8:38:04 AM
Selenium	ND	25		mg/Kg	10	4/21/2008 11:44:13 AM
Silver	ND	0.25		mg/Kg	1	4/21/2008 9:34:53 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/17/2008
Acenaphthylene	ND	30		mg/Kg	1	4/17/2008
Aniline	ND	30		mg/Kg	1	4/17/2008
Anthracene	ND	30		mg/Kg	1	4/17/2008
Azobenzene	ND	30		mg/Kg	1	4/17/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/17/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/17/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/17/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzoic acid	ND	50		mg/Kg	1	4/17/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/17/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/17/2008
Carbazole	ND	30		mg/Kg	1	4/17/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/17/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/17/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-2-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 4:22:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-05	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/17/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/17/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Chrysene	34	30		mg/Kg	1	4/17/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/17/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/17/2008
Dibenzofuran	ND	30		mg/Kg	1	4/17/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/17/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/17/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/17/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
Fluoranthene	ND	38		mg/Kg	1	4/17/2008
Fluorene	40	30		mg/Kg	1	4/17/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/17/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/17/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/17/2008
Hexachloroethane	ND	30		mg/Kg	1	4/17/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/17/2008
Isophorone	ND	75		mg/Kg	1	4/17/2008
2-Methylnaphthalene	260	38		mg/Kg	1	4/17/2008
2-Methylphenol	ND	75		mg/Kg	1	4/17/2008
3+4-Methylphenol	98	30		mg/Kg	1	4/17/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/17/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/17/2008
Naphthalene	65	30		mg/Kg	1	4/17/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/17/2008
Nitrobenzene	ND	75		mg/Kg	1	4/17/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/17/2008
Phenanthrene	140	30		mg/Kg	1	4/17/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-2-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 4:22:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-05	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	54	30		mg/Kg	1	4/17/2008
Pyrene	ND	30		mg/Kg	1	4/17/2008
Pyridine	ND	75		mg/Kg	1	4/17/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/17/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
Surr: 2,4,6-Tribromophenol	46.6	35.5-141		%REC	1	4/17/2008
Surr: 2-Fluorobiphenyl	88.0	30.4-128		%REC	1	4/17/2008
Surr: 2-Fluorophenol	99.0	28.1-129		%REC	1	4/17/2008
Surr: 4-Terphenyl-d14	43.9	34.6-151		%REC	1	4/17/2008
Surr: Nitrobenzene-d5	91.4	26.5-122		%REC	1	4/17/2008
Surr: Phenol-d5	81.5	37.6-118		%REC	1	4/17/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	2.4	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
Toluene	11	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
Ethylbenzene	3.4	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
1,2,4-Trimethylbenzene	10	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
1,3,5-Trimethylbenzene	2.8	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
Naphthalene	6.5	1.0		mg/Kg	10	4/19/2008 4:12:55 PM
1-Methylnaphthalene	14	2.0		mg/Kg	10	4/19/2008 4:12:55 PM
2-Methylnaphthalene	20	2.0		mg/Kg	10	4/19/2008 4:12:55 PM
Acetone	ND	7.5		mg/Kg	10	4/19/2008 4:12:55 PM
Bromobenzene	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
Bromoform	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
Bromomethane	ND	1.0		mg/Kg	10	4/19/2008 4:12:55 PM
2-Butanone	ND	5.0		mg/Kg	10	4/19/2008 4:12:55 PM
Carbon disulfide	ND	5.0		mg/Kg	10	4/19/2008 4:12:55 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/19/2008 4:12:55 PM
Chlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
Chloroethane	ND	1.0		mg/Kg	10	4/19/2008 4:12:55 PM
Chloroform	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
Chloromethane	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/19/2008 4:12:55 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-2-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 4:22:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-05	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
Dibromomethane	ND	1.0		mg/Kg	10	4/19/2008 4:12:55 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/19/2008 4:12:55 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/19/2008 4:12:55 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/19/2008 4:12:55 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/19/2008 4:12:55 PM
2-Hexanone	ND	5.0		mg/Kg	10	4/19/2008 4:12:55 PM
Isopropylbenzene	0.58	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/19/2008 4:12:55 PM
Methylene chloride	ND	1.5		mg/Kg	10	4/19/2008 4:12:55 PM
n-Butylbenzene	2.1	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
n-Propylbenzene	1.5	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
sec-Butylbenzene	0.80	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
Styrene	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/19/2008 4:12:55 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/19/2008 4:12:55 PM
Vinyl chloride	ND	0.50		mg/Kg	10	4/19/2008 4:12:55 PM
Xylenes, Total	20	1.0		mg/Kg	10	4/19/2008 4:12:55 PM
Surr: 1,2-Dichloroethane-d4	94.9	68.7-122		%REC	10	4/19/2008 4:12:55 PM
Surr: 4-Bromofluorobenzene	97.8	79.3-126		%REC	10	4/19/2008 4:12:55 PM
Surr: Dibromofluoromethane	82.5	64.4-119		%REC	10	4/19/2008 4:12:55 PM
Surr: Toluene-d8	97.1	86.5-121		%REC	10	4/19/2008 4:12:55 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-3-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 2:45:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-06	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	110000	5000		mg/Kg	50	4/17/2008 2:16:06 AM
Motor Oil Range Organics (MRO)	ND	25000		mg/Kg	50	4/17/2008 2:16:06 AM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 2:16:06 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	150	100		mg/Kg	20	4/18/2008 10:22:51 PM
Surr: BFB	108	84-138		%REC	20	4/18/2008 10:22:51 PM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	6.7	1.6		mg/Kg	50	4/18/2008 4:39:22 PM
EPA METHOD 6010B: SOIL METALS						Analyst: NMO
Arsenic	11	2.5		mg/Kg	1	4/21/2008 9:37:31 AM
Barium	220	1.0		mg/Kg	10	4/21/2008 11:46:55 AM
Cadmium	0.12	0.10		mg/Kg	1	4/21/2008 9:37:31 AM
Chromium	16	0.30		mg/Kg	1	4/21/2008 9:37:31 AM
Lead	22	0.25		mg/Kg	1	4/28/2008 7:58:08 AM
Selenium	ND	25		mg/Kg	10	4/21/2008 11:46:55 AM
Silver	ND	0.25		mg/Kg	1	4/21/2008 9:37:31 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	30		mg/Kg	1	4/17/2008
Acenaphthylene	ND	30		mg/Kg	1	4/17/2008
Aniline	ND	30		mg/Kg	1	4/17/2008
Anthracene	ND	30		mg/Kg	1	4/17/2008
Azobenzene	ND	30		mg/Kg	1	4/17/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/17/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/17/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/17/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzoic acid	ND	50		mg/Kg	1	4/17/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/17/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/17/2008
Carbazole	ND	30		mg/Kg	1	4/17/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/17/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/17/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-3-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 2:45:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-06	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/17/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/17/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Chrysene	ND	30		mg/Kg	1	4/17/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/17/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/17/2008
Dibenzofuran	ND	30		mg/Kg	1	4/17/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/17/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/17/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/17/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
Fluoranthene	ND	38		mg/Kg	1	4/17/2008
Fluorene	40	30		mg/Kg	1	4/17/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/17/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/17/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/17/2008
Hexachloroethane	ND	30		mg/Kg	1	4/17/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/17/2008
Isophorone	ND	75		mg/Kg	1	4/17/2008
2-Methylnaphthalene	200	38		mg/Kg	1	4/17/2008
2-Methylphenol	ND	75		mg/Kg	1	4/17/2008
3+4-Methylphenol	ND	30		mg/Kg	1	4/17/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/17/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/17/2008
Naphthalene	36	30		mg/Kg	1	4/17/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/17/2008
Nitrobenzene	ND	75		mg/Kg	1	4/17/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/17/2008
Phenanthrene	100	30		mg/Kg	1	4/17/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-3-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 2:45:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-06	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/17/2008
Pyrene	ND	30		mg/Kg	1	4/17/2008
Pyridine	ND	75		mg/Kg	1	4/17/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/17/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
Surr: 2,4,6-Tribromophenol	54.8	35.5-141		%REC	1	4/17/2008
Surr: 2-Fluorobiphenyl	83.8	30.4-128		%REC	1	4/17/2008
Surr: 2-Fluorophenol	94.0	28.1-129		%REC	1	4/17/2008
Surr: 4-Terphenyl-d14	36.5	34.6-151		%REC	1	4/17/2008
Surr: Nitrobenzene-d5	90.2	26.5-122		%REC	1	4/17/2008
Surr: Phenol-d5	70.1	37.6-118		%REC	1	4/17/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	2.0	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
Toluene	7.0	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
Ethylbenzene	1.9	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
1,2,4-Trimethylbenzene	8.3	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
1,3,5-Trimethylbenzene	2.0	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
Naphthalene	5.9	1.0		mg/Kg	10	4/19/2008 4:48:49 PM
1-Methylnaphthalene	15	2.0		mg/Kg	10	4/19/2008 4:48:49 PM
2-Methylnaphthalene	20	2.0		mg/Kg	10	4/19/2008 4:48:49 PM
Acetone	ND	7.5		mg/Kg	10	4/19/2008 4:48:49 PM
Bromobenzene	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
Bromoform	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
Bromomethane	ND	1.0		mg/Kg	10	4/19/2008 4:48:49 PM
2-Butanone	ND	5.0		mg/Kg	10	4/19/2008 4:48:49 PM
Carbon disulfide	ND	5.0		mg/Kg	10	4/19/2008 4:48:49 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/19/2008 4:48:49 PM
Chlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
Chloroethane	ND	1.0		mg/Kg	10	4/19/2008 4:48:49 PM
Chloroform	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
Chloromethane	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/19/2008 4:48:49 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-3-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 2:45:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-06	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Dibromochloromethane	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
Dibromomethane	ND	1.0		mg/Kg	10	4/19/2008 4:48:49 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/19/2008 4:48:49 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/19/2008 4:48:49 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/19/2008 4:48:49 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/19/2008 4:48:49 PM
2-Hexanone	ND	5.0		mg/Kg	10	4/19/2008 4:48:49 PM
Isopropylbenzene	0.51	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
4-Isopropyltoluene	0.53	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/19/2008 4:48:49 PM
Methylene chloride	ND	1.5		mg/Kg	10	4/19/2008 4:48:49 PM
n-Butylbenzene	2.1	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
n-Propylbenzene	1.2	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
sec-Butylbenzene	0.89	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
Styrene	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/19/2008 4:48:49 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/19/2008 4:48:49 PM
Vinyl chloride	ND	0.50		mg/Kg	10	4/19/2008 4:48:49 PM
Xylenes, Total	12	1.0		mg/Kg	10	4/19/2008 4:48:49 PM
Surr: 1,2-Dichloroethane-d4	95.0	68.7-122		%REC	10	4/19/2008 4:48:49 PM
Surr: 4-Bromofluorobenzene	96.8	79.3-126		%REC	10	4/19/2008 4:48:49 PM
Surr: Dibromofluoromethane	80.9	64.4-119		%REC	10	4/19/2008 4:48:49 PM
Surr: Toluene-d8	102	86.5-121		%REC	10	4/19/2008 4:48:49 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-4-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 10:50:00 AM
Project:	Evaporation Pond/Acration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-07	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	76000	5000		mg/Kg	50	4/17/2008 2:50:07 AM
Motor Oil Range Organics (MRO)	ND	25000		mg/Kg	50	4/17/2008 2:50:07 AM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 2:50:07 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	590	100		mg/Kg	20	4/18/2008 10:52:49 PM
Surr: BFB	120	84-138		%REC	20	4/18/2008 10:52:49 PM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	8.3	1.6		mg/Kg	50	4/18/2008 4:40:54 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	47	2.5		mg/Kg	1	4/21/2008 9:40:07 AM
Barium	310	1.0		mg/Kg	10	4/21/2008 11:49:37 AM
Cadmium	1.4	0.10		mg/Kg	1	4/21/2008 9:40:07 AM
Chromium	60	3.0		mg/Kg	10	4/21/2008 11:49:37 AM
Lead	220	2.5		mg/Kg	10	4/28/2008 8:40:06 AM
Selenium	ND	25		mg/Kg	10	4/21/2008 11:49:37 AM
Silver	ND	0.25		mg/Kg	1	4/21/2008 9:40:07 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/17/2008
Acenaphthylene	ND	30		mg/Kg	1	4/17/2008
Aniline	ND	30		mg/Kg	1	4/17/2008
Anthracene	ND	30		mg/Kg	1	4/17/2008
Azobenzene	ND	30		mg/Kg	1	4/17/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/17/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/17/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/17/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzoic acid	ND	50		mg/Kg	1	4/17/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/17/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/17/2008
Carbazole	ND	30		mg/Kg	1	4/17/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/17/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/17/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-4-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 10:50:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-07	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/17/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/17/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Chrysene	31	30		mg/Kg	1	4/17/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/17/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/17/2008
Dibenzofuran	ND	30		mg/Kg	1	4/17/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/17/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/17/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/17/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
Fluoranthene	ND	38		mg/Kg	1	4/17/2008
Fluorene	ND	30		mg/Kg	1	4/17/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/17/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/17/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/17/2008
Hexachloroethane	ND	30		mg/Kg	1	4/17/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/17/2008
Isophorone	ND	75		mg/Kg	1	4/17/2008
2-Methylnaphthalene	340	38		mg/Kg	1	4/17/2008
2-Methylphenol	ND	75		mg/Kg	1	4/17/2008
3+4-Methylphenol	ND	30		mg/Kg	1	4/17/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/17/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/17/2008
Naphthalene	90	30		mg/Kg	1	4/17/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/17/2008
Nitrobenzene	ND	75		mg/Kg	1	4/17/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
Pentachlorophenol	ND	60		mg/Kg	1	4/17/2008
Phenanthrene	84	30		mg/Kg	1	4/17/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-4-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 10:50:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-07	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/17/2008
Pyrene	ND	30		mg/Kg	1	4/17/2008
Pyridine	ND	75		mg/Kg	1	4/17/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/17/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
Surr: 2,4,6-Tribromophenol	59.3	35.5-141		%REC	1	4/17/2008
Surr: 2-Fluorobiphenyl	91.2	30.4-128		%REC	1	4/17/2008
Surr: 2-Fluorophenol	94.5	28.1-129		%REC	1	4/17/2008
Surr: 4-Terphenyl-d14	43.9	34.6-151		%REC	1	4/17/2008
Surr: Nitrobenzene-d5	88.0	26.5-122		%REC	1	4/17/2008
Surr: Phenol-d5	75.7	37.6-118		%REC	1	4/17/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	3.2	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
Toluene	22	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
Ethylbenzene	11	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
1,2,4-Trimethylbenzene	37	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
1,3,5-Trimethylbenzene	10	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
Naphthalene	21	1.0		mg/Kg	10	4/19/2008 5:24:28 PM
1-Methylnaphthalene	29	2.0		mg/Kg	10	4/19/2008 5:24:28 PM
2-Methylnaphthalene	46	2.0		mg/Kg	10	4/19/2008 5:24:28 PM
Acetone	ND	7.5		mg/Kg	10	4/19/2008 5:24:28 PM
Bromobenzene	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
Bromoform	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
Bromomethane	ND	1.0		mg/Kg	10	4/19/2008 5:24:28 PM
2-Butanone	ND	5.0		mg/Kg	10	4/19/2008 5:24:28 PM
Carbon disulfide	ND	5.0		mg/Kg	10	4/19/2008 5:24:28 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/19/2008 5:24:28 PM
Chlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
Chloroethane	ND	1.0		mg/Kg	10	4/19/2008 5:24:28 PM
Chloroform	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
Chloromethane	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/19/2008 5:24:28 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-4-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 10:50:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-07	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
Dibromomethane	ND	1.0		mg/Kg	10	4/19/2008 5:24:28 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/19/2008 5:24:28 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/19/2008 5:24:28 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/19/2008 5:24:28 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/19/2008 5:24:28 PM
2-Hexanone	ND	5.0		mg/Kg	10	4/19/2008 5:24:28 PM
Isopropylbenzene	1.6	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
4-Isopropyltoluene	0.84	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/19/2008 5:24:28 PM
Methylene chloride	ND	1.6		mg/Kg	10	4/19/2008 5:24:28 PM
n-Butylbenzene	7.0	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
n-Propylbenzene	5.9	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
sec-Butylbenzene	1.8	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
Styrene	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/19/2008 5:24:28 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/19/2008 5:24:28 PM
Vinyl chloride	ND	0.50		mg/Kg	10	4/19/2008 5:24:28 PM
Xylenes, Total	60	1.0		mg/Kg	10	4/19/2008 5:24:28 PM
Surr: 1,2-Dichloroethane-d4	101	68.7-122		%REC	10	4/19/2008 5:24:28 PM
Surr: 4-Bromofluorobenzene	96.3	79.3-126		%REC	10	4/19/2008 5:24:28 PM
Surr: Dibromofluoromethane	85.6	64.4-119		%REC	10	4/19/2008 5:24:28 PM
Surr: Toluene-d8	93.8	86.5-121		%REC	10	4/19/2008 5:24:28 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-5-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 10:20:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-08	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	130000	5000		mg/Kg	50	4/17/2008 3:23:56 AM
Motor Oil Range Organics (MRO)	25000	25000		mg/Kg	50	4/17/2008 3:23:56 AM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 3:23:56 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	670	100		mg/Kg	20	4/18/2008 11:22:52 PM
Surr: BFB	112	84-138		%REC	20	4/18/2008 11:22:52 PM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	18	3.3		mg/Kg	100	4/18/2008 4:42:27 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	31	2.5		mg/Kg	1	4/21/2008 10:54:58 AM
Barium	450	1.0		mg/Kg	10	4/21/2008 11:52:18 AM
Cadmium	0.79	0.10		mg/Kg	1	4/21/2008 10:54:58 AM
Chromium	46	0.30		mg/Kg	1	4/21/2008 10:54:58 AM
Lead	110	2.5		mg/Kg	10	4/28/2008 8:44:11 AM
Selenium	ND	25		mg/Kg	10	4/21/2008 11:52:18 AM
Silver	ND	0.25		mg/Kg	1	4/21/2008 10:54:58 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/17/2008
Acenaphthylene	ND	30		mg/Kg	1	4/17/2008
Aniline	ND	30		mg/Kg	1	4/17/2008
Anthracene	ND	30		mg/Kg	1	4/17/2008
Azobenzene	ND	30		mg/Kg	1	4/17/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/17/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/17/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/17/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzoic acid	ND	50		mg/Kg	1	4/17/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/17/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/17/2008
Carbazole	ND	30		mg/Kg	1	4/17/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/17/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/17/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-5-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 10:20:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-08	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/17/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/17/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Chrysene	ND	30		mg/Kg	1	4/17/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/17/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/17/2008
Dibenzofuran	ND	30		mg/Kg	1	4/17/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/17/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/17/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/17/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
Fluoranthene	ND	38		mg/Kg	1	4/17/2008
Fluorene	47	30		mg/Kg	1	4/17/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/17/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/17/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/17/2008
Hexachloroethane	ND	30		mg/Kg	1	4/17/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/17/2008
Isophorone	ND	75		mg/Kg	1	4/17/2008
2-Methylnaphthalene	460	38		mg/Kg	1	4/17/2008
2-Methylphenol	ND	75		mg/Kg	1	4/17/2008
3+4-Methylphenol	47	30		mg/Kg	1	4/17/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/17/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/17/2008
Naphthalene	110	30		mg/Kg	1	4/17/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/17/2008
Nitrobenzene	ND	75		mg/Kg	1	4/17/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/17/2008
Phenanthrene	130	30		mg/Kg	1	4/17/2008

Qualifiers:			
	*	Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	E	Value above quantitation range	H Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL Reporting Limit
	S	Spike recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-5-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 10:20:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-08	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/17/2008
Pyrene	ND	30		mg/Kg	1	4/17/2008
Pyridine	ND	75		mg/Kg	1	4/17/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/17/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
Surr: 2,4,6-Tribromophenol	41.4	35.5-141		%REC	1	4/17/2008
Surr: 2-Fluorobiphenyl	74.1	30.4-128		%REC	1	4/17/2008
Surr: 2-Fluorophenol	94.2	28.1-129		%REC	1	4/17/2008
Surr: 4-Terphenyl-d14	46.3	34.6-151		%REC	1	4/17/2008
Surr: Nitrobenzene-d5	99.8	26.5-122		%REC	1	4/17/2008
Surr: Phenol-d5	74.0	37.6-118		%REC	1	4/17/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	9.0	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
Toluene	48	1.0		mg/Kg	20	4/21/2008 12:37:00 PM
Ethylbenzene	15	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
Methyl tert-butyl ether (MTBE)	0.74	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
1,2,4-Trimethylbenzene	26	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
1,3,5-Trimethylbenzene	7.4	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
Naphthalene	19	1.0		mg/Kg	10	4/19/2008 6:00:00 PM
1-Methylnaphthalene	28	2.0		mg/Kg	10	4/19/2008 6:00:00 PM
2-Methylnaphthalene	42	2.0		mg/Kg	10	4/19/2008 6:00:00 PM
Acetone	ND	7.5		mg/Kg	10	4/19/2008 6:00:00 PM
Bromobenzene	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
Bromoform	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
Bromomethane	ND	1.0		mg/Kg	10	4/19/2008 6:00:00 PM
2-Butanone	ND	5.0		mg/Kg	10	4/19/2008 6:00:00 PM
Carbon disulfide	ND	5.0		mg/Kg	10	4/19/2008 6:00:00 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/19/2008 6:00:00 PM
Chlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
Chloroethane	ND	1.0		mg/Kg	10	4/19/2008 6:00:00 PM
Chloroform	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
Chloromethane	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/19/2008 6:00:00 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-5-HP
Lab Order:	0804138	**Collection Date:**	4/10/2008 10:20:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-08	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Dibromochloromethane	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
Dibromomethane	ND	1.0		mg/Kg	10	4/19/2008 6:00:00 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/19/2008 6:00:00 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/19/2008 6:00:00 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/19/2008 6:00:00 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/19/2008 6:00:00 PM
2-Hexanone	ND	5.0		mg/Kg	10	4/19/2008 6:00:00 PM
Isopropylbenzene	2.6	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
4-Isopropyltoluene	0.90	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/19/2008 6:00:00 PM
Methylene chloride	ND	1.5		mg/Kg	10	4/19/2008 6:00:00 PM
n-Butylbenzene	4.9	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
n-Propylbenzene	4.8	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
sec-Butylbenzene	1.9	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
Styrene	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/19/2008 6:00:00 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/19/2008 6:00:00 PM
Vinyl chloride	ND	0.50		mg/Kg	10	4/19/2008 6:00:00 PM
Xylenes, Total	81	1.0		mg/Kg	10	4/19/2008 6:00:00 PM
Surr: 1,2-Dichloroethane-d4	97.9	68.7-122		%REC	10	4/19/2008 6:00:00 PM
Surr: 4-Bromofluorobenzene	101	79.3-126		%REC	20	4/21/2008 12:37:00 PM
Surr: Dibromofluoromethane	88.2	64.4-119		%REC	10	4/19/2008 6:00:00 PM
Surr: Toluene-d8	100	86.5-121		%REC	10	4/19/2008 6:00:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-1-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 5:10:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-09	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						**Analyst: SCC**
Diesel Range Organics (DRO)	71000	5000		mg/Kg	50	4/17/2008 3:57:41 AM
Motor Oil Range Organics (MRO)	ND	25000		mg/Kg	50	4/17/2008 3:57:41 AM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 3:57:41 AM
EPA METHOD 8015B: GASOLINE RANGE						**Analyst: NSB**
Gasoline Range Organics (GRO)	300	250		mg/Kg	50	4/17/2008 2:36:15 PM
Surr: BFB	109	84-138		%REC	50	4/17/2008 2:36:15 PM
EPA METHOD 7471: MERCURY						**Analyst: SNV**
Mercury	19	3.3		mg/Kg	100	4/18/2008 4:44:01 PM
EPA METHOD 6010B: SOIL METALS						**Analyst: NMO**
Arsenic	29	2.5		mg/Kg	1	4/21/2008 10:57:35 AM
Barium	140	1.0		mg/Kg	10	4/21/2008 11:55:01 AM
Cadmium	0.64	0.10		mg/Kg	1	4/21/2008 10:57:35 AM
Chromium	44	0.30		mg/Kg	1	4/21/2008 10:57:35 AM
Lead	23	0.25		mg/Kg	1	4/28/2008 8:14:15 AM
Selenium	ND	25		mg/Kg	10	4/21/2008 11:55:01 AM
Silver	ND	0.25		mg/Kg	1	4/21/2008 10:57:35 AM
EPA METHOD 8270C: SEMIVOLATILES						**Analyst: JDC**
Acenaphthene	ND	30		mg/Kg	1	4/17/2008
Acenaphthylene	ND	30		mg/Kg	1	4/17/2008
Aniline	ND	30		mg/Kg	1	4/17/2008
Anthracene	ND	30		mg/Kg	1	4/17/2008
Azobenzene	ND	30		mg/Kg	1	4/17/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/17/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/17/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/17/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzoic acid	ND	50		mg/Kg	1	4/17/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/17/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/17/2008
Carbazole	ND	30		mg/Kg	1	4/17/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/17/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/17/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-1-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 5:10:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-09	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/17/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/17/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Chrysene	ND	30		mg/Kg	1	4/17/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/17/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/17/2008
Dibenzofuran	ND	30		mg/Kg	1	4/17/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/17/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/17/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/17/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
Fluoranthene	ND	38		mg/Kg	1	4/17/2008
Fluorene	ND	30		mg/Kg	1	4/17/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/17/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/17/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/17/2008
Hexachloroethane	ND	30		mg/Kg	1	4/17/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/17/2008
Isophorone	ND	75		mg/Kg	1	4/17/2008
2-Methylnaphthalene	190	38		mg/Kg	1	4/17/2008
2-Methylphenol	ND	75		mg/Kg	1	4/17/2008
3+4-Methylphenol	ND	30		mg/Kg	1	4/17/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/17/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/17/2008
Naphthalene	53	30		mg/Kg	1	4/17/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/17/2008
Nitrobenzene	ND	75		mg/Kg	1	4/17/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/17/2008
Phenanthrene	50	30		mg/Kg	1	4/17/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-1-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 5:10:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-09	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	34	30		mg/Kg	1	4/17/2008
Pyrene	ND	30		mg/Kg	1	4/17/2008
Pyridine	ND	75		mg/Kg	1	4/17/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/17/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
Surr: 2,4,6-Tribromophenol	70.3	35.5-141		%REC	1	4/17/2008
Surr: 2-Fluorobiphenyl	98.8	30.4-128		%REC	1	4/17/2008
Surr: 2-Fluorophenol	95.0	28.1-129		%REC	1	4/17/2008
Surr: 4-Terphenyl-d14	58.3	34.6-151		%REC	1	4/17/2008
Surr: Nitrobenzene-d5	84.8	26.5-122		%REC	1	4/17/2008
Surr: Phenol-d5	72.8	37.6-118		%REC	1	4/17/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	3.6	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
Toluene	17	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
Ethylbenzene	4.3	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
1,2,4-Trimethylbenzene	11	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
1,3,5-Trimethylbenzene	2.7	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
Naphthalene	10	1.0		mg/Kg	10	4/19/2008 6:35:13 PM
1-Methylnaphthalene	13	2.0		mg/Kg	10	4/19/2008 6:35:13 PM
2-Methylnaphthalene	21	2.0		mg/Kg	10	4/19/2008 6:35:13 PM
Acetone	ND	7.5		mg/Kg	10	4/19/2008 6:35:13 PM
Bromobenzene	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
Bromoform	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
Bromomethane	ND	1.0		mg/Kg	10	4/19/2008 6:35:13 PM
2-Butanone	ND	5.0		mg/Kg	10	4/19/2008 6:35:13 PM
Carbon disulfide	ND	5.0		mg/Kg	10	4/19/2008 6:35:13 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/19/2008 6:35:13 PM
Chlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
Chloroethane	ND	1.0		mg/Kg	10	4/19/2008 6:35:13 PM
Chloroform	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
Chloromethane	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/19/2008 6:35:13 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-1-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 5:10:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-09	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
Dibromomethane	ND	1.0		mg/Kg	10	4/19/2008 6:35:13 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/19/2008 6:35:13 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/19/2008 6:35:13 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/19/2008 6:35:13 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/19/2008 6:35:13 PM
2-Hexanone	ND	5.0		mg/Kg	10	4/19/2008 6:35:13 PM
Isopropylbenzene	0.64	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/19/2008 6:35:13 PM
Methylene chloride	ND	1.5		mg/Kg	10	4/19/2008 6:35:13 PM
n-Butylbenzene	0.65	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
n-Propylbenzene	1.4	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
Styrene	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/19/2008 6:35:13 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/19/2008 6:35:13 PM
Vinyl chloride	ND	0.50		mg/Kg	10	4/19/2008 6:35:13 PM
Xylenes, Total	27	1.0		mg/Kg	10	4/19/2008 6:35:13 PM
Surr: 1,2-Dichloroethane-d4	94.3	68.7-122		%REC	10	4/19/2008 6:35:13 PM
Surr: 4-Bromofluorobenzene	91.3	79.3-126		%REC	10	4/19/2008 6:35:13 PM
Surr: Dibromofluoromethane	97.5	64.4-119		%REC	10	4/19/2008 6:35:13 PM
Surr: Toluene-d8	98.8	86.5-121		%REC	10	4/19/2008 6:35:13 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-2-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 5:25:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-10	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	190000	5000		mg/Kg	50	4/17/2008 4:31:31 AM
Motor Oil Range Organics (MRO)	25000	25000		mg/Kg	50	4/17/2008 4:31:31 AM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 4:31:31 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	560	250		mg/Kg	50	4/17/2008 3:06:28 PM
Surr: BFB	115	84-138		%REC	50	4/17/2008 3:06:28 PM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	11	3.3		mg/Kg	100	4/18/2008 4:53:58 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	11	2.5		mg/Kg	1	4/21/2008 11:01:58 AM
Barium	190	1.0		mg/Kg	10	4/21/2008 12:06:58 PM
Cadmium	0.69	0.10		mg/Kg	1	4/21/2008 11:01:58 AM
Chromium	19	0.30		mg/Kg	1	4/21/2008 11:01:58 AM
Lead	79	2.5		mg/Kg	10	4/28/2008 8:46:35 AM
Selenium	ND	25		mg/Kg	10	4/21/2008 12:06:58 PM
Silver	ND	0.25		mg/Kg	1	4/21/2008 11:01:58 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/17/2008
Acenaphthylene	ND	30		mg/Kg	1	4/17/2008
Aniline	ND	30		mg/Kg	1	4/17/2008
Anthracene	ND	30		mg/Kg	1	4/17/2008
Azobenzene	ND	30		mg/Kg	1	4/17/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/17/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/17/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/17/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/17/2008
Benzoic acid	ND	50		mg/Kg	1	4/17/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/17/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/17/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/17/2008
Carbazole	ND	30		mg/Kg	1	4/17/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/17/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/17/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-2-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 5:25:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-10	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/17/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/17/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/17/2008
Chrysene	ND	30		mg/Kg	1	4/17/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/17/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/17/2008
Dibenzofuran	ND	30		mg/Kg	1	4/17/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/17/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/17/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/17/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/17/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/17/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/17/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/17/2008
Fluoranthene	ND	38		mg/Kg	1	4/17/2008
Fluorene	70	30		mg/Kg	1	4/17/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/17/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/17/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/17/2008
Hexachloroethane	ND	30		mg/Kg	1	4/17/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/17/2008
Isophorone	ND	75		mg/Kg	1	4/17/2008
2-Methylnaphthalene	460	38		mg/Kg	1	4/17/2008
2-Methylphenol	ND	75		mg/Kg	1	4/17/2008
3+4-Methylphenol	42	30		mg/Kg	1	4/17/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/17/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/17/2008
Naphthalene	79	30		mg/Kg	1	4/17/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/17/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/17/2008
Nitrobenzene	ND	75		mg/Kg	1	4/17/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/17/2008
Pentachlorophenol	ND	60		mg/Kg	1	4/17/2008
Phenanthrene	210	30		mg/Kg	1	4/17/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-2-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 5:25:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-10	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	35	30		mg/Kg	1	4/17/2008
Pyrene	39	30		mg/Kg	1	4/17/2008
Pyridine	ND	75		mg/Kg	1	4/17/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/17/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/17/2008
Surr: 2,4,6-Tribromophenol	39.2	35.5-141		%REC	1	4/17/2008
Surr: 2-Fluorobiphenyl	38.1	30.4-128		%REC	1	4/17/2008
Surr: 2-Fluorophenol	90.6	28.1-129		%REC	1	4/17/2008
Surr: 4-Terphenyl-d14	38.1	34.6-151		%REC	1	4/17/2008
Surr: Nitrobenzene-d5	91.2	26.5-122		%REC	1	4/17/2008
Surr: Phenol-d5	71.3	37.6-118		%REC	1	4/17/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	5.1	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
Toluene	32	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
Ethylbenzene	10	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
Methyl tert-butyl ether (MTBE)	1.1	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
1,2,4-Trimethylbenzene	26	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
1,3,5-Trimethylbenzene	6.7	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
Naphthalene	19	1.0		mg/Kg	10	4/19/2008 7:10:34 PM
1-Methylnaphthalene	42	2.0		mg/Kg	10	4/19/2008 7:10:34 PM
2-Methylnaphthalene	44	4.0		mg/Kg	20	4/21/2008 1:12:46 PM
Acetone	ND	7.5		mg/Kg	10	4/19/2008 7:10:34 PM
Bromobenzene	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
Bromoform	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
Bromomethane	ND	1.0		mg/Kg	10	4/19/2008 7:10:34 PM
2-Butanone	ND	5.0		mg/Kg	10	4/19/2008 7:10:34 PM
Carbon disulfide	ND	5.0		mg/Kg	10	4/19/2008 7:10:34 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/19/2008 7:10:34 PM
Chlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
Chloroethane	ND	1.0		mg/Kg	10	4/19/2008 7:10:34 PM
Chloroform	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
Chloromethane	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/19/2008 7:10:34 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-2-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 5:25:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-10	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
Dibromomethane	ND	1.0		mg/Kg	10	4/19/2008 7:10:34 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/19/2008 7:10:34 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/19/2008 7:10:34 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/19/2008 7:10:34 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/19/2008 7:10:34 PM
2-Hexanone	ND	5.0		mg/Kg	10	4/19/2008 7:10:34 PM
Isopropylbenzene	1.8	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
4-Isopropyltoluene	1.0	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/19/2008 7:10:34 PM
Methylene chloride	ND	1.5		mg/Kg	10	4/19/2008 7:10:34 PM
n-Butylbenzene	2.6	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
n-Propylbenzene	4.7	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
sec-Butylbenzene	1.9	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
Styrene	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/19/2008 7:10:34 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/19/2008 7:10:34 PM
Vinyl chloride	ND	0.50		mg/Kg	10	4/19/2008 7:10:34 PM
Xylenes, Total	56	1.0		mg/Kg	10	4/19/2008 7:10:34 PM
Surr: 1,2-Dichloroethane-d4	96.3	68.7-122		%REC	10	4/19/2008 7:10:34 PM
Surr: 4-Bromofluorobenzene	91.8	79.3-126		%REC	10	4/19/2008 7:10:34 PM
Surr: Dibromofluoromethane	99.9	64.4-119		%REC	10	4/19/2008 7:10:34 PM
Surr: Toluene-d8	92.2	86.5-121		%REC	10	4/19/2008 7:10:34 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
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	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-3-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 5:35:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-11	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	54000	5000		mg/Kg	50	4/17/2008 6:46:15 AM
Motor Oil Range Organics (MRO)	ND	25000		mg/Kg	50	4/17/2008 6:46:15 AM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 6:46:15 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	170	100		mg/Kg	20	4/18/2008 11:53:01 PM
Surr: BFB	112	84-138		%REC	20	4/18/2008 11:53:01 PM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	7.0	3.2		mg/Kg	100	4/18/2008 4:55:33 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	12	2.5		mg/Kg	1	4/21/2008 11:04:36 AM
Barium	210	1.0		mg/Kg	10	4/21/2008 12:11:18 PM
Cadmium	0.16	0.10		mg/Kg	1	4/21/2008 11:04:36 AM
Chromium	16	0.30		mg/Kg	1	4/21/2008 11:04:36 AM
Lead	25	0.25		mg/Kg	1	4/28/2008 8:19:16 AM
Selenium	ND	25		mg/Kg	10	4/21/2008 12:11:18 PM
Silver	ND	0.25		mg/Kg	1	4/21/2008 11:04:36 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/18/2008
Acenaphthylene	ND	30		mg/Kg	1	4/18/2008
Aniline	ND	30		mg/Kg	1	4/18/2008
Anthracene	ND	30		mg/Kg	1	4/18/2008
Azobenzene	ND	30		mg/Kg	1	4/18/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/18/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/18/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/18/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzoic acid	ND	50		mg/Kg	1	4/18/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/18/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/18/2008
Carbazole	ND	30		mg/Kg	1	4/18/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/18/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/18/2008

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Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

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Lab Order:	0804138	**Collection Date:**	4/10/2008 5:35:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-11	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/18/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/18/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Chrysene	ND	30		mg/Kg	1	4/18/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/18/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/18/2008
Dibenzofuran	ND	30		mg/Kg	1	4/18/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/18/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/18/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/18/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
Fluoranthene	ND	38		mg/Kg	1	4/18/2008
Fluorene	36	30		mg/Kg	1	4/18/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/18/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/18/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/18/2008
Hexachloroethane	ND	30		mg/Kg	1	4/18/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/18/2008
Isophorone	ND	75		mg/Kg	1	4/18/2008
2-Methylnaphthalene	200	38		mg/Kg	1	4/18/2008
2-Methylphenol	ND	75		mg/Kg	1	4/18/2008
3+4-Methylphenol	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/18/2008
Naphthalene	41	30		mg/Kg	1	4/18/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/18/2008
Nitrobenzene	ND	75		mg/Kg	1	4/18/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/18/2008
Phenanthrene	84	30		mg/Kg	1	4/18/2008

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-3-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 5:35:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-11	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/18/2008
Pyrene	ND	30		mg/Kg	1	4/18/2008
Pyridine	ND	75		mg/Kg	1	4/18/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/18/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
Surr: 2,4,6-Tribromophenol	58.2	35.5-141		%REC	1	4/18/2008
Surr: 2-Fluorobiphenyl	89.0	30.4-126		%REC	1	4/18/2008
Surr: 2-Fluorophenol	87.3	28.1-129		%REC	1	4/18/2008
Surr: 4-Terphenyl-d14	48.3	34.6-151		%REC	1	4/18/2008
Surr: Nitrobenzene-d5	81.0	26.5-122		%REC	1	4/18/2008
Surr: Phenol-d5	67.8	37.6-118		%REC	1	4/18/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	1.3	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
Toluene	5.7	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
Ethylbenzene	1.8	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
1,2,4-Trimethylbenzene	6.7	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
1,3,5-Trimethylbenzene	1.7	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
Naphthalene	4.0	1.0		mg/Kg	10	4/19/2008 7:46:22 PM
1-Methylnaphthalene	10	2.0		mg/Kg	10	4/19/2008 7:46:22 PM
2-Methylnaphthalene	15	2.0		mg/Kg	10	4/19/2008 7:46:22 PM
Acetone	ND	7.5		mg/Kg	10	4/19/2008 7:46:22 PM
Bromobenzene	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
Bromoform	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
Bromomethane	ND	1.0		mg/Kg	10	4/19/2008 7:46:22 PM
2-Butanone	ND	5.0		mg/Kg	10	4/19/2008 7:46:22 PM
Carbon disulfide	ND	5.0		mg/Kg	10	4/19/2008 7:46:22 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/19/2008 7:46:22 PM
Chlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
Chloroethane	ND	1.0		mg/Kg	10	4/19/2008 7:46:22 PM
Chloroform	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
Chloromethane	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/19/2008 7:46:22 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-3-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 5:35:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-11	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
Dibromomethane	ND	1.0		mg/Kg	10	4/19/2008 7:46:22 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/19/2008 7:46:22 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/19/2008 7:46:22 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/19/2008 7:46:22 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/19/2008 7:46:22 PM
2-Hexanone	ND	5.0		mg/Kg	10	4/19/2008 7:46:22 PM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/19/2008 7:46:22 PM
Methylene chloride	ND	1.5		mg/Kg	10	4/19/2008 7:46:22 PM
n-Butylbenzene	1.7	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
n-Propylbenzene	0.65	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
sec-Butylbenzene	0.82	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
Styrene	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/19/2008 7:46:22 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/19/2008 7:46:22 PM
Vinyl chloride	ND	0.50		mg/Kg	10	4/19/2008 7:46:22 PM
Xylenes, Total	12	1.0		mg/Kg	10	4/19/2008 7:46:22 PM
Surr: 1,2-Dichloroethane-d4	96.3	68.7-122		%REC	10	4/19/2008 7:46:22 PM
Surr: 4-Bromofluorobenzene	79.5	79.3-126		%REC	10	4/19/2008 7:46:22 PM
Surr: Dibromofluoromethane	93.9	64.4-119		%REC	10	4/19/2008 7:46:22 PM
Surr: Toluene-d8	96.6	86.5-121		%REC	10	4/19/2008 7:46:22 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-4-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 5:55:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-12	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	190000	5000		mg/Kg	50	4/17/2008 7:19:45 AM
Motor Oil Range Organics (MRO)	ND	25000		mg/Kg	50	4/17/2008 7:19:45 AM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 7:19:45 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	280	250		mg/Kg	50	4/17/2008 4:06:44 PM
Surr: BFB	112	84-138		%REC	50	4/17/2008 4:06:44 PM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	9.5	1.6		mg/Kg	50	4/18/2008 4:57:08 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	9.5	2.5		mg/Kg	1	4/21/2008 11:07:15 AM
Barium	280	1.0		mg/Kg	10	4/21/2008 12:13:56 PM
Cadmium	0.48	0.10		mg/Kg	1	4/21/2008 11:07:15 AM
Chromium	24	0.30		mg/Kg	1	4/21/2008 11:07:15 AM
Lead	38	0.25		mg/Kg	1	4/28/2008 8:21:47 AM
Selenium	ND	25		mg/Kg	10	4/21/2008 12:13:56 PM
Silver	ND	0.25		mg/Kg	1	4/21/2008 11:07:15 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/18/2008
Acenaphthylene	ND	30		mg/Kg	1	4/18/2008
Aniline	ND	30		mg/Kg	1	4/18/2008
Anthracene	ND	30		mg/Kg	1	4/18/2008
Azobenzene	ND	30		mg/Kg	1	4/18/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/18/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/18/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/18/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzoic acid	ND	50		mg/Kg	1	4/18/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/18/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/18/2008
Carbazole	ND	30		mg/Kg	1	4/18/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/18/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/18/2008

Qualifiers:

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- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-4-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 5:55:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-12	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/18/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/18/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Chrysene	33	30		mg/Kg	1	4/18/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/18/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/18/2008
Dibenzofuran	ND	30		mg/Kg	1	4/18/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/18/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/18/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/18/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
Fluoranthene	ND	38		mg/Kg	1	4/18/2008
Fluorene	91	30		mg/Kg	1	4/18/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/18/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/18/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/18/2008
Hexachloroethane	ND	30		mg/Kg	1	4/18/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/18/2008
Isophorone	ND	75		mg/Kg	1	4/18/2008
2-Methylnaphthalene	530	38		mg/Kg	1	4/18/2008
2-Methylphenol	ND	75		mg/Kg	1	4/18/2008
3+4-Methylphenol	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/18/2008
Naphthalene	94	30		mg/Kg	1	4/18/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/18/2008
Nitrobenzene	ND	75		mg/Kg	1	4/18/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/18/2008
Phenanthrene	200	30		mg/Kg	1	4/18/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-4-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 5:55:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-12	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/18/2008
Pyrene	44	30		mg/Kg	1	4/18/2008
Pyridine	ND	75		mg/Kg	1	4/18/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/18/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
Surr: 2,4,6-Tribromophenol	34.3	35.5-141	S	%REC	1	4/18/2008
Surr: 2-Fluorobiphenyl	84.2	30.4-128		%REC	1	4/18/2008
Surr: 2-Fluorophenol	89.3	28.1-129		%REC	1	4/18/2008
Surr: 4-Terphenyl-d14	40.1	34.6-151		%REC	1	4/18/2008
Surr: Nitrobenzene-d5	90.0	26.5-122		%REC	1	4/18/2008
Surr: Phenol-d5	71.5	37.6-118		%REC	1	4/18/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	4.2	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
Toluene	19	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
Ethylbenzene	5.7	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
1,2,4-Trimethylbenzene	18	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
1,3,5-Trimethylbenzene	4.1	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
Naphthalene	14	1.0		mg/Kg	10	4/19/2008 8:21:47 PM
1-Methylnaphthalene	28	2.0		mg/Kg	10	4/19/2008 8:21:47 PM
2-Methylnaphthalene	45	2.0		mg/Kg	10	4/19/2008 8:21:47 PM
Acetone	ND	7.5		mg/Kg	10	4/19/2008 8:21:47 PM
Bromobenzene	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
Bromoform	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
Bromomethane	ND	1.0		mg/Kg	10	4/19/2008 8:21:47 PM
2-Butanone	ND	5.0		mg/Kg	10	4/19/2008 8:21:47 PM
Carbon disulfide	ND	5.0		mg/Kg	10	4/19/2008 8:21:47 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/19/2008 8:21:47 PM
Chlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
Chloroethane	ND	1.0		mg/Kg	10	4/19/2008 8:21:47 PM
Chloroform	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
Chloromethane	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/19/2008 8:21:47 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-4-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 5:55:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-12	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
Dibromomethane	ND	1.0		mg/Kg	10	4/19/2008 8:21:47 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/19/2008 8:21:47 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/19/2008 8:21:47 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/19/2008 8:21:47 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/19/2008 8:21:47 PM
2-Hexanone	ND	5.0		mg/Kg	10	4/19/2008 8:21:47 PM
Isopropylbenzene	0.79	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
4-Isopropyltoluene	0.56	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/19/2008 8:21:47 PM
Methylene chloride	ND	1.5		mg/Kg	10	4/19/2008 8:21:47 PM
n-Butylbenzene	1.3	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
n-Propylbenzene	2.4	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
sec-Butylbenzene	1.3	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
Styrene	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/19/2008 8:21:47 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/19/2008 8:21:47 PM
Vinyl chloride	ND	0.50		mg/Kg	10	4/19/2008 8:21:47 PM
Xylenes, Total	33	1.0		mg/Kg	10	4/19/2008 8:21:47 PM
Surr: 1,2-Dichloroethane-d4	94.2	68.7-122		%REC	10	4/19/2008 8:21:47 PM
Surr: 4-Bromofluorobenzene	84.0	79.3-126		%REC	10	4/19/2008 8:21:47 PM
Surr: Dibromofluoromethane	96.8	64.4-119		%REC	10	4/19/2008 8:21:47 PM
Surr: Toluene-d8	94.0	86.5-121		%REC	10	4/19/2008 8:21:47 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-5-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 6:00:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-13	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	220000	5000		mg/Kg	50	4/17/2008 7:53:25 AM
Motor Oil Range Organics (MRO)	ND	25000		mg/Kg	50	4/17/2008 7:53:25 AM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 7:53:25 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	280	250		mg/Kg	50	4/17/2008 4:36:45 PM
Surr: BFB	117	84-138		%REC	50	4/17/2008 4:36:45 PM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	9.9	1.6		mg/Kg	50	4/28/2008 2:35:00 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	12	2.5		mg/Kg	1	4/21/2008 11:09:54 AM
Barium	360	1.0		mg/Kg	10	4/21/2008 12:16:35 PM
Cadmium	0.20	0.10		mg/Kg	1	4/21/2008 11:09:54 AM
Chromium	13	0.30		mg/Kg	1	4/21/2008 11:09:54 AM
Lead	30	0.25		mg/Kg	1	4/28/2008 8:24:19 AM
Selenium	ND	25		mg/Kg	10	4/21/2008 12:16:35 PM
Silver	ND	0.25		mg/Kg	1	4/21/2008 11:09:54 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/18/2008
Acenaphthylene	ND	30		mg/Kg	1	4/18/2008
Aniline	ND	30		mg/Kg	1	4/18/2008
Anthracene	ND	30		mg/Kg	1	4/18/2008
Azobenzene	ND	30		mg/Kg	1	4/18/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/18/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/18/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/18/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzoic acid	ND	50		mg/Kg	1	4/18/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/18/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/18/2008
Carbazole	ND	30		mg/Kg	1	4/18/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/18/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/18/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-5-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 6:00:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-13	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/18/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/18/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Chrysene	ND	30		mg/Kg	1	4/18/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/18/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/18/2008
Dibenzofuran	ND	30		mg/Kg	1	4/18/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/18/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/18/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/18/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
Fluoranthene	ND	38		mg/Kg	1	4/18/2008
Fluorene	84	30		mg/Kg	1	4/18/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/18/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/18/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/18/2008
Hexachloroethane	ND	30		mg/Kg	1	4/18/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/18/2008
Isophorone	ND	75		mg/Kg	1	4/18/2008
2-Methylnaphthalene	600	38		mg/Kg	1	4/18/2008
2-Methylphenol	ND	75		mg/Kg	1	4/18/2008
3+4-Methylphenol	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/18/2008
Naphthalene	110	30		mg/Kg	1	4/18/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/18/2008
Nitrobenzene	ND	75		mg/Kg	1	4/18/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/18/2008
Phenanthrene	220	30		mg/Kg	1	4/18/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-5-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 6:00:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-13	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/18/2008
Pyrene	ND	30		mg/Kg	1	4/18/2008
Pyridine	ND	75		mg/Kg	1	4/18/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/18/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
Surr: 2,4,6-Tribromophenol	21.9	35.5-141	S	%REC	1	4/18/2008
Surr: 2-Fluorobiphenyl	68.1	30.4-128		%REC	1	4/18/2008
Surr: 2-Fluorophenol	79.4	28.1-129		%REC	1	4/18/2008
Surr: 4-Terphenyl-d14	33.5	34.6-151	S	%REC	1	4/18/2008
Surr: Nitrobenzene-d5	98.4	26.5-122		%REC	1	4/18/2008
Surr: Phenol-d5	62.6	37.6-118		%REC	1	4/18/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	5.9	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
Toluene	24	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
Ethylbenzene	6.1	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
Methyl tert-butyl ether (MTBE)	1.1	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
1,2,4-Trimethylbenzene	16	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
1,3,5-Trimethylbenzene	4.0	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
Naphthalene	14	1.0		mg/Kg	10	4/19/2008 10:43:34 PM
1-Methylnaphthalene	29	2.0		mg/Kg	10	4/19/2008 10:43:34 PM
2-Methylnaphthalene	43	2.0		mg/Kg	10	4/19/2008 10:43:34 PM
Acetone	ND	7.5		mg/Kg	10	4/19/2008 10:43:34 PM
Bromobenzene	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
Bromoform	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
Bromomethane	ND	1.0		mg/Kg	10	4/19/2008 10:43:34 PM
2-Butanone	ND	5.0		mg/Kg	10	4/19/2008 10:43:34 PM
Carbon disulfide	ND	5.0		mg/Kg	10	4/19/2008 10:43:34 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/19/2008 10:43:34 PM
Chlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
Chloroethane	ND	1.0		mg/Kg	10	4/19/2008 10:43:34 PM
Chloroform	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
Chloromethane	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/19/2008 10:43:34 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL1-5-SS
Lab Order:	0804138	**Collection Date:**	4/10/2008 6:00:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-13	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
Dibromomethane	ND	1.0		mg/Kg	10	4/19/2008 10:43:34 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/19/2008 10:43:34 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/19/2008 10:43:34 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/19/2008 10:43:34 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/19/2008 10:43:34 PM
2-Hexanone	ND	5.0		mg/Kg	10	4/19/2008 10:43:34 PM
Isopropylbenzene	1.2	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
4-Isopropyltoluene	0.71	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/19/2008 10:43:34 PM
Methylene chloride	ND	1.5		mg/Kg	10	4/19/2008 10:43:34 PM
n-Butylbenzene	3.0	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
n-Propylbenzene	2.5	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
sec-Butylbenzene	1.2	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
Styrene	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/19/2008 10:43:34 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/19/2008 10:43:34 PM
Vinyl chloride	ND	0.50		mg/Kg	10	4/19/2008 10:43:34 PM
Xylenes, Total	35	1.0		mg/Kg	10	4/19/2008 10:43:34 PM
Surr: 1,2-Dichloroethane-d4	95.9	68.7-122		%REC	10	4/19/2008 10:43:34 PM
Surr: 4-Bromofluorobenzene	85.8	79.3-126		%REC	10	4/19/2008 10:43:34 PM
Surr: Dibromofluoromethane	99.9	64.4-119		%REC	10	4/19/2008 10:43:34 PM
Surr: Toluene-d8	97.7	86.5-121		%REC	10	4/19/2008 10:43:34 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-6
Lab Order:	0804138	**Collection Date:**	4/9/2008 7:10:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-14	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	180000	5000		mg/Kg	50	4/17/2008 8:27:16 AM
Motor Oil Range Organics (MRO)	26000	25000		mg/Kg	50	4/17/2008 8:27:16 AM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 8:27:16 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/19/2008 12:23:11 AM
Surr: BFB	108	84-138		%REC	20	4/19/2008 12:23:11 AM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	4.1	1.6		mg/Kg	50	4/28/2008 2:38:12 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	3.2	2.5		mg/Kg	1	4/21/2008 11:12:34 AM
Barium	330	1.0		mg/Kg	10	4/21/2008 12:19:14 PM
Cadmium	0.26	0.10		mg/Kg	1	4/21/2008 11:12:34 AM
Chromium	8.8	0.30		mg/Kg	1	4/21/2008 11:12:34 AM
Lead	16	0.25		mg/Kg	1	4/28/2008 8:26:49 AM
Selenium	ND	25		mg/Kg	10	4/21/2008 12:19:14 PM
Silver	ND	0.25		mg/Kg	1	4/21/2008 11:12:34 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/18/2008
Acenaphthylene	ND	30		mg/Kg	1	4/18/2008
Aniline	ND	30		mg/Kg	1	4/18/2008
Anthracene	ND	30		mg/Kg	1	4/18/2008
Azobenzene	ND	30		mg/Kg	1	4/18/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/18/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/18/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/18/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzoic acid	ND	50		mg/Kg	1	4/18/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/18/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/18/2008
Carbazole	ND	30		mg/Kg	1	4/18/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/18/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/18/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-6
Lab Order:	0804138	**Collection Date:**	4/9/2008 7:10:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-14	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/18/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/18/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Chrysene	40	30		mg/Kg	1	4/18/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/18/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/18/2008
Dibenzofuran	ND	30		mg/Kg	1	4/18/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/18/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/18/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/18/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
Fluoranthene	ND	38		mg/Kg	1	4/18/2008
Fluorene	70	30		mg/Kg	1	4/18/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/18/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/18/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/18/2008
Hexachloroethane	ND	30		mg/Kg	1	4/18/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/18/2008
Isophorone	ND	75		mg/Kg	1	4/18/2008
2-Methylnaphthalene	210	38		mg/Kg	1	4/18/2008
2-Methylphenol	ND	75		mg/Kg	1	4/18/2008
3+4-Methylphenol	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/18/2008
Naphthalene	ND	30		mg/Kg	1	4/18/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/18/2008
Nitrobenzene	ND	75		mg/Kg	1	4/18/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/18/2008
Phenanthrene	150	30		mg/Kg	1	4/18/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-6
Lab Order:	0804138	**Collection Date:**	4/9/2008 7:10:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-14	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/18/2008
Pyrene	41	30		mg/Kg	1	4/18/2008
Pyridine	ND	75		mg/Kg	1	4/18/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/18/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
Surr: 2,4,6-Tribromophenol	39.8	35.5-141		%REC	1	4/18/2008
Surr: 2-Fluorobiphenyl	81.0	30.4-128		%REC	1	4/18/2008
Surr: 2-Fluorophenol	87.3	28.1-129		%REC	1	4/18/2008
Surr: 4-Terphenyl-d14	47.1	34.6-151		%REC	1	4/18/2008
Surr: Nitrobenzene-d5	63.5	26.5-122		%REC	1	4/18/2008
Surr: Phenol-d5	65.5	37.6-118		%REC	1	4/18/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
Toluene	0.63	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
Ethylbenzene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
1,2,4-Trimethylbenzene	2.2	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
Naphthalene	2.8	1.0		mg/Kg	10	4/19/2008 11:18:48 PM
1-Methylnaphthalene	15	2.0		mg/Kg	10	4/19/2008 11:18:48 PM
2-Methylnaphthalene	19	2.0		mg/Kg	10	4/19/2008 11:18:48 PM
Acetone	ND	7.5		mg/Kg	10	4/19/2008 11:18:48 PM
Bromobenzene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
Bromoform	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
Bromomethane	ND	1.0		mg/Kg	10	4/19/2008 11:18:48 PM
2-Butanone	ND	5.0		mg/Kg	10	4/19/2008 11:18:48 PM
Carbon disulfide	ND	5.0		mg/Kg	10	4/19/2008 11:18:48 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/19/2008 11:18:48 PM
Chlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
Chloroethane	ND	1.0		mg/Kg	10	4/19/2008 11:18:48 PM
Chloroform	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
Chloromethane	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/19/2008 11:18:48 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-6
Lab Order:	0804138	**Collection Date:**	4/9/2008 7:10:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-14	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Dibromochloromethane	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
Dibromomethane	ND	1.0		mg/Kg	10	4/19/2008 11:18:48 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/19/2008 11:18:48 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/19/2008 11:18:48 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/19/2008 11:18:48 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/19/2008 11:18:48 PM
2-Hexanone	ND	5.0		mg/Kg	10	4/19/2008 11:18:48 PM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/19/2008 11:18:48 PM
Methylene chloride	ND	1.5		mg/Kg	10	4/19/2008 11:18:48 PM
n-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
Styrene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/19/2008 11:18:48 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/19/2008 11:18:48 PM
Vinyl chloride	ND	0.50		mg/Kg	10	4/19/2008 11:18:48 PM
Xylenes, Total	1.3	1.0		mg/Kg	10	4/19/2008 11:18:48 PM
Surr: 1,2-Dichloroethane-d4	98.2	68.7-122		%REC	10	4/19/2008 11:18:48 PM
Surr: 4-Bromofluorobenzene	92.6	79.3-126		%REC	10	4/19/2008 11:18:48 PM
Surr: Dibromofluoromethane	99.2	64.4-119		%REC	10	4/19/2008 11:18:48 PM
Surr: Toluene-d8	97.7	86.5-121		%REC	10	4/19/2008 11:18:48 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0804138
Project: Evaporation Pond/Aeration Lagoon
Lab ID: 0804138-15

Client Sample ID: EP1-7
Collection Date: 4/9/2008 7:35:00 PM
Date Received: 4/11/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	200000	5000		mg/Kg	50	4/17/2008 9:01:21 AM
Motor Oil Range Organics (MRO)	25000	25000		mg/Kg	50	4/17/2008 9:01:21 AM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 9:01:21 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/19/2008 12:53:17 AM
Surr: BFB	102	84-138		%REC	20	4/19/2008 12:53:17 AM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	4.4	1.6		mg/Kg	50	4/28/2008 2:41:25 PM
EPA METHOD 6010B: SOIL METALS						Analyst: NMO
Arsenic	3.6	2.5		mg/Kg	1	4/21/2008 11:15:14 AM
Barium	280	1.0		mg/Kg	10	4/21/2008 12:21:53 PM
Cadmium	0.27	0.10		mg/Kg	1	4/21/2008 11:15:14 AM
Chromium	8.3	0.30		mg/Kg	1	4/21/2008 11:15:14 AM
Lead	9.7	0.25		mg/Kg	1	4/28/2008 8:29:20 AM
Selenium	27	25		mg/Kg	10	4/21/2008 12:21:53 PM
Silver	ND	0.25		mg/Kg	1	4/21/2008 11:15:14 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	30		mg/Kg	1	4/18/2008
Acenaphthylene	ND	30		mg/Kg	1	4/18/2008
Aniline	ND	30		mg/Kg	1	4/18/2008
Anthracene	ND	30		mg/Kg	1	4/18/2008
Azobenzene	ND	30		mg/Kg	1	4/18/2008
Benz(a)anthracene	35	30		mg/Kg	1	4/18/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/18/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/18/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzoic acid	ND	60		mg/Kg	1	4/18/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/18/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/18/2008
Carbazole	ND	30		mg/Kg	1	4/18/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/18/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/18/2008

Qualifiers:
- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-7
Lab Order:	0804138	**Collection Date:**	4/9/2008 7:35:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-15	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/18/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/18/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Chrysene	74	30		mg/Kg	1	4/18/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/18/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/18/2008
Dibenzofuran	ND	30		mg/Kg	1	4/18/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/18/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/18/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/18/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
Fluoranthene	ND	38		mg/Kg	1	4/18/2008
Fluorene	77	30		mg/Kg	1	4/18/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/18/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/18/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/18/2008
Hexachloroethane	ND	30		mg/Kg	1	4/18/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/18/2008
Isophorone	ND	75		mg/Kg	1	4/18/2008
2-Methylnaphthalene	260	38		mg/Kg	1	4/18/2008
2-Methylphenol	ND	75		mg/Kg	1	4/18/2008
3+4-Methylphenol	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/18/2008
Naphthalene	ND	30		mg/Kg	1	4/18/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/18/2008
Nitrobenzene	ND	75		mg/Kg	1	4/18/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/18/2008
Phenanthrene	240	30		mg/Kg	1	4/18/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-7
Lab Order:	0804138	**Collection Date:**	4/9/2008 7:35:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-15	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/18/2008
Pyrene	70	30		mg/Kg	1	4/18/2008
Pyridine	ND	75		mg/Kg	1	4/18/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/18/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
Surr: 2,4,6-Tribromophenol	33.5	35.5-141	S	%REC	1	4/18/2008
Surr: 2-Fluorobiphenyl	82.2	30.4-128		%REC	1	4/18/2008
Surr: 2-Fluorophenol	88.1	28.1-129		%REC	1	4/18/2008
Surr: 4-Terphenyl-d14	39.7	34.6-151		%REC	1	4/18/2008
Surr: Nitrobenzene-d5	62.9	26.5-122		%REC	1	4/18/2008
Surr: Phenol-d5	60.7	37.6-118		%REC	1	4/18/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
Toluene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
Ethylbenzene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
1,2,4-Trimethylbenzene	1.7	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
Naphthalene	1.7	1.0		mg/Kg	10	4/19/2008 11:54:29 PM
1-Methylnaphthalene	9.1	2.0		mg/Kg	10	4/19/2008 11:54:29 PM
2-Methylnaphthalene	12	2.0		mg/Kg	10	4/19/2008 11:54:29 PM
Acetone	ND	7.5		mg/Kg	10	4/19/2008 11:54:29 PM
Bromobenzene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
Bromoform	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
Bromomethane	ND	1.0		mg/Kg	10	4/19/2008 11:54:29 PM
2-Butanone	ND	5.0		mg/Kg	10	4/19/2008 11:54:29 PM
Carbon disulfide	ND	5.0		mg/Kg	10	4/19/2008 11:54:29 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/19/2008 11:54:29 PM
Chlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
Chloroethane	ND	1.0		mg/Kg	10	4/19/2008 11:54:29 PM
Chloroform	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
Chloromethane	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/19/2008 11:54:29 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-7
Lab Order:	0804138	**Collection Date:**	4/9/2008 7:35:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-15	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
Dibromomethane	ND	1.0		mg/Kg	10	4/19/2008 11:54:29 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/19/2008 11:54:29 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/19/2008 11:54:29 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/19/2008 11:54:29 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/19/2008 11:54:29 PM
2-Hexanone	ND	5.0		mg/Kg	10	4/19/2008 11:54:29 PM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/19/2008 11:54:29 PM
Methylene chloride	ND	1.5		mg/Kg	10	4/19/2008 11:54:29 PM
n-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
Styrene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/19/2008 11:54:29 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/19/2008 11:54:29 PM
Vinyl chloride	ND	0.50		mg/Kg	10	4/19/2008 11:54:29 PM
Xylenes, Total	ND	1.0		mg/Kg	10	4/19/2008 11:54:29 PM
Surr: 1,2-Dichloroethane-d4	97.2	68.7-122		%REC	10	4/19/2008 11:54:29 PM
Surr: 4-Bromofluorobenzene	91.1	79.3-126		%REC	10	4/19/2008 11:54:29 PM
Surr: Dibromofluoromethane	103	84.4-119		%REC	10	4/19/2008 11:54:29 PM
Surr: Toluene-d8	98.2	86.5-121		%REC	10	4/19/2008 11:54:29 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-8
Lab Order:	0804138	**Collection Date:**	4/9/2008 7:17:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-16	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	150000	5000		mg/Kg	50	4/17/2008 9:35:41 AM
Motor Oil Range Organics (MRO)	ND	25000		mg/Kg	50	4/17/2008 9:35:41 AM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 9:35:41 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/19/2008 1:23:23 AM
Surr: BFB	108	84-138		%REC	20	4/19/2008 1:23:23 AM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	4.9	1.6		mg/Kg	50	4/28/2008 2:44:40 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	11	2.5		mg/Kg	1	4/21/2008 11:17:52 AM
Barium	120	1.0		mg/Kg	10	4/21/2008 12:24:33 PM
Cadmium	0.80	0.10		mg/Kg	1	4/21/2008 11:17:52 AM
Chromium	58	3.0		mg/Kg	10	4/21/2008 12:24:33 PM
Lead	15	0.25		mg/Kg	1	4/28/2008 8:31:51 AM
Selenium	ND	25		mg/Kg	10	4/21/2008 12:24:33 PM
Silver	ND	0.25		mg/Kg	1	4/21/2008 11:17:52 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/18/2008
Acenaphthylene	ND	30		mg/Kg	1	4/18/2008
Aniline	ND	30		mg/Kg	1	4/18/2008
Anthracene	ND	30		mg/Kg	1	4/18/2008
Azobenzene	ND	30		mg/Kg	1	4/18/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/18/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/18/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/18/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzoic acid	ND	60		mg/Kg	1	4/18/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/18/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/18/2008
Carbazole	ND	30		mg/Kg	1	4/18/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/18/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/18/2008

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-8
Lab Order:	0804138	**Collection Date:**	4/9/2008 7:17:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-16	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/18/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/18/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Chrysene	ND	30		mg/Kg	1	4/18/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/18/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/18/2008
Dibenzofuran	ND	30		mg/Kg	1	4/18/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/18/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/18/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/18/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
Fluoranthene	ND	38		mg/Kg	1	4/18/2008
Fluorene	41	30		mg/Kg	1	4/18/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/18/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/18/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/18/2008
Hexachloroethane	ND	30		mg/Kg	1	4/18/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/18/2008
Isophorone	ND	75		mg/Kg	1	4/18/2008
2-Methylnaphthalene	110	38		mg/Kg	1	4/18/2008
2-Methylphenol	ND	75		mg/Kg	1	4/18/2008
3+4-Methylphenol	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/18/2008
Naphthalene	ND	30		mg/Kg	1	4/18/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/18/2008
Nitrobenzene	ND	75		mg/Kg	1	4/18/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/18/2008
Phenanthrene	120	30		mg/Kg	1	4/18/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-8
Lab Order:	0804138	**Collection Date:**	4/9/2008 7:17:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-16	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/18/2008
Pyrene	ND	30		mg/Kg	1	4/18/2008
Pyridine	ND	75		mg/Kg	1	4/18/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/18/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
Surr: 2,4,6-Tribromophenol	49.2	35.5-141		%REC	1	4/18/2008
Surr: 2-Fluorobiphenyl	84.2	30.4-128		%REC	1	4/18/2008
Surr: 2-Fluorophenol	86.1	28.1-129		%REC	1	4/18/2008
Surr: 4-Terphenyl-d14	47.3	34.6-151		%REC	1	4/18/2008
Surr: Nitrobenzene-d5	62.5	26.5-122		%REC	1	4/18/2008
Surr: Phenol-d5	66.3	37.6-118		%REC	1	4/18/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
Toluene	0.54	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
Ethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
1,2,4-Trimethylbenzene	1.2	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
Naphthalene	1.6	1.0		mg/Kg	10	4/20/2008 12:29:39 AM
1-Methylnaphthalene	8.1	2.0		mg/Kg	10	4/20/2008 12:29:39 AM
2-Methylnaphthalene	11	2.0		mg/Kg	10	4/20/2008 12:29:39 AM
Acetone	ND	7.5		mg/Kg	10	4/20/2008 12:29:39 AM
Bromobenzene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
Bromoform	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
Bromomethane	ND	1.0		mg/Kg	10	4/20/2008 12:29:39 AM
2-Butanone	ND	5.0		mg/Kg	10	4/20/2008 12:29:39 AM
Carbon disulfide	ND	5.0		mg/Kg	10	4/20/2008 12:29:39 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/20/2008 12:29:39 AM
Chlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
Chloroethane	ND	1.0		mg/Kg	10	4/20/2008 12:29:39 AM
Chloroform	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
Chloromethane	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/20/2008 12:29:39 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-8
Lab Order:	0804138	**Collection Date:**	4/9/2008 7:17:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-16	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
Dibromomethane	ND	1.0		mg/Kg	10	4/20/2008 12:29:39 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/20/2008 12:29:39 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/20/2008 12:29:39 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/20/2008 12:29:39 AM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/20/2008 12:29:39 AM
2-Hexanone	ND	5.0		mg/Kg	10	4/20/2008 12:29:39 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/20/2008 12:29:39 AM
Methylene chloride	ND	1.5		mg/Kg	10	4/20/2008 12:29:39 AM
n-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
Styrene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/20/2008 12:29:39 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/20/2008 12:29:39 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/20/2008 12:29:39 AM
Vinyl chloride	ND	0.60		mg/Kg	10	4/20/2008 12:29:39 AM
Xylenes, Total	ND	1.0		mg/Kg	10	4/20/2008 12:29:39 AM
Surr: 1,2-Dichloroethane-d4	96.9	68.7-122		%REC	10	4/20/2008 12:29:39 AM
Surr: 4-Bromofluorobenzene	90.7	79.3-126		%REC	10	4/20/2008 12:29:39 AM
Surr: Dibromofluoromethane	96.4	64.4-119		%REC	10	4/20/2008 12:29:39 AM
Surr: Toluene-d8	99.8	86.5-121		%REC	10	4/20/2008 12:29:39 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BD-2
Lab Order:	0804138	**Collection Date:**	4/9/2008
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-19	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	350000	5000		mg/Kg	50	4/17/2008 5:27:25 PM
Motor Oil Range Organics (MRO)	52000	25000		mg/Kg	50	4/17/2008 5:27:25 PM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 5:27:25 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/19/2008 1:53:15 AM
Surr: BFB	103	84-138		%REC	20	4/19/2008 1:53:15 AM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	5.5	1.6		mg/Kg	50	4/28/2008 2:51:14 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	14	2.5		mg/Kg	1	4/23/2008 8:07:03 AM
Barium	210	1.0		mg/Kg	10	4/23/2008 9:21:38 AM
Cadmium	0.40	0.10		mg/Kg	1	4/23/2008 8:07:03 AM
Chromium	16	0.30		mg/Kg	1	4/23/2008 8:07:03 AM
Lead	29	0.25		mg/Kg	1	4/28/2008 9:36:28 AM
Selenium	ND	25		mg/Kg	10	4/23/2008 9:21:38 AM
Silver	ND	0.25		mg/Kg	1	4/28/2008 9:36:28 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/18/2008
Acenaphthylene	ND	30		mg/Kg	1	4/18/2008
Aniline	ND	30		mg/Kg	1	4/18/2008
Anthracene	ND	30		mg/Kg	1	4/18/2008
Azobenzene	ND	30		mg/Kg	1	4/18/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/18/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/18/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/18/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzoic acid	ND	50		mg/Kg	1	4/18/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/18/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/18/2008
Carbazole	ND	30		mg/Kg	1	4/18/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/18/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/18/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BD-2
Lab Order:	0804138	**Collection Date:**	4/9/2008
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-19	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/18/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/18/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Chrysene	49	30		mg/Kg	1	4/18/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/18/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/18/2008
Dibenzofuran	36	30		mg/Kg	1	4/18/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/18/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/18/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/18/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
Fluoranthene	ND	38		mg/Kg	1	4/18/2008
Fluorene	130	30		mg/Kg	1	4/18/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/18/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/18/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/18/2008
Hexachloroethane	ND	30		mg/Kg	1	4/18/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/18/2008
Isophorone	ND	75		mg/Kg	1	4/18/2008
2-Methylnaphthalene	840	75		mg/Kg	2	4/20/2008
2-Methylphenol	ND	75		mg/Kg	1	4/18/2008
3+4-Methylphenol	35	30		mg/Kg	1	4/18/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/18/2008
Naphthalene	67	30		mg/Kg	1	4/18/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/18/2008
Nitrobenzene	ND	75		mg/Kg	1	4/18/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/18/2008
Phenanthrene	310	30		mg/Kg	1	4/18/2008

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BD-2
Lab Order:	0804138	**Collection Date:**	4/9/2008
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-19	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/18/2008
Pyrene	51	30		mg/Kg	1	4/18/2008
Pyridine	ND	75		mg/Kg	1	4/18/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/18/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
Surr: 2,4,6-Tribromophenol	19.9	35.5-141	S	%REC	1	4/18/2008
Surr: 2-Fluorobiphenyl	0	30.4-128	S	%REC	1	4/18/2008
Surr: 2-Fluorophenol	83.7	28.1-129		%REC	1	4/18/2008
Surr: 4-Terphenyl-d14	45.1	34.6-151		%REC	1	4/18/2008
Surr: Nitrobenzene-d5	84.4	26.5-122		%REC	1	4/18/2008
Surr: Phenol-d5	66.9	37.6-118		%REC	1	4/18/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
Toluene	1.2	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
Ethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
1,2,4-Trimethylbenzene	3.6	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
1,3,5-Trimethylbenzene	0.56	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
Naphthalene	4.1	1.0		mg/Kg	10	4/20/2008 1:05:19 AM
1-Methylnaphthalene	21	2.0		mg/Kg	10	4/20/2008 1:05:19 AM
2-Methylnaphthalene	24	2.0		mg/Kg	10	4/20/2008 1:05:19 AM
Acetone	ND	7.5		mg/Kg	10	4/20/2008 1:05:19 AM
Bromobenzene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
Bromoform	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
Bromomethane	ND	1.0		mg/Kg	10	4/20/2008 1:05:19 AM
2-Butanone	ND	5.0		mg/Kg	10	4/20/2008 1:05:19 AM
Carbon disulfide	ND	5.0		mg/Kg	10	4/20/2008 1:05:19 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/20/2008 1:05:19 AM
Chlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
Chloroethane	ND	1.0		mg/Kg	10	4/20/2008 1:05:19 AM
Chloroform	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
Chloromethane	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/20/2008 1:05:19 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BD-2
Lab Order:	0804138	**Collection Date:**	4/9/2008
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-19	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
Dibromomethane	ND	1.0		mg/Kg	10	4/20/2008 1:05:19 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/20/2008 1:05:19 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/20/2008 1:05:19 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/20/2008 1:05:19 AM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/20/2008 1:05:19 AM
2-Hexanone	ND	5.0		mg/Kg	10	4/20/2008 1:05:19 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/20/2008 1:05:19 AM
Methylene chloride	ND	1.5		mg/Kg	10	4/20/2008 1:05:19 AM
n-Butylbenzene	0.72	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
Styrene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/20/2008 1:05:19 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/20/2008 1:05:19 AM
Vinyl chloride	ND	0.50		mg/Kg	10	4/20/2008 1:05:19 AM
Xylenes, Total	3.1	1.0		mg/Kg	10	4/20/2008 1:05:19 AM
Surr: 1,2-Dichloroethane-d4	98.6	68.7-122		%REC	10	4/20/2008 1:05:19 AM
Surr: 4-Bromofluorobenzene	93.1	79.3-126		%REC	10	4/20/2008 1:05:19 AM
Surr: Dibromofluoromethane	105	64.4-119		%REC	10	4/20/2008 1:05:19 AM
Surr: Toluene-d8	101	86.5-121		%REC	10	4/20/2008 1:05:19 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BD-1
Lab Order:	0804138	**Collection Date:**	4/8/2008
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-20	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	220000	5000		mg/Kg	50	4/18/2008 11:41:56 PM
Motor Oil Range Organics (MRO)	ND	25000		mg/Kg	50	4/18/2008 11:41:56 PM
Surr: DNOP	0	61.7-135	S	%REC	50	4/18/2008 11:41:56 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/19/2008 2:23:16 AM
Surr: BFB	109	84-138		%REC	20	4/19/2008 2:23:16 AM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	11	1.6		mg/Kg	50	4/28/2008 2:54:28 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	12	2.5		mg/Kg	1	4/23/2008 8:09:42 AM
Barium	420	1.0		mg/Kg	10	4/23/2008 9:24:19 AM
Cadmium	0.46	0.10		mg/Kg	1	4/23/2008 8:09:42 AM
Chromium	22	0.30		mg/Kg	1	4/23/2008 8:09:42 AM
Lead	26	0.25		mg/Kg	1	4/28/2008 9:39:06 AM
Selenium	ND	25		mg/Kg	10	4/23/2008 9:24:19 AM
Silver	ND	0.25		mg/Kg	1	4/28/2008 9:39:06 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/18/2008
Acenaphthylene	ND	30		mg/Kg	1	4/18/2008
Aniline	ND	30		mg/Kg	1	4/18/2008
Anthracene	ND	30		mg/Kg	1	4/18/2008
Azobenzene	ND	30		mg/Kg	1	4/18/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/18/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/18/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/18/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzoic acid	ND	50		mg/Kg	1	4/18/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/18/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/18/2008
Carbazole	ND	30		mg/Kg	1	4/18/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/18/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/18/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BD-1
Lab Order:	0804138	**Collection Date:**	4/8/2008
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-20	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/18/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/18/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Chrysene	48	30		mg/Kg	1	4/18/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/18/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/18/2008
Dibenzofuran	ND	30		mg/Kg	1	4/18/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/18/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/18/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/18/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
Fluoranthene	ND	38		mg/Kg	1	4/18/2008
Fluorene	100	30		mg/Kg	1	4/18/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/18/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/18/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/18/2008
Hexachloroethane	ND	30		mg/Kg	1	4/18/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/18/2008
Isophorone	ND	75		mg/Kg	1	4/18/2008
2-Methylnaphthalene	540	38		mg/Kg	1	4/18/2008
2-Methylphenol	ND	75		mg/Kg	1	4/18/2008
3+4-Methylphenol	30	30		mg/Kg	1	4/18/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/18/2008
Naphthalene	48	30		mg/Kg	1	4/18/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/18/2008
Nitrobenzene	ND	75		mg/Kg	1	4/18/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/18/2008
Phenanthrene	300	30		mg/Kg	1	4/18/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BD-1
Lab Order:	0804138	**Collection Date:**	4/8/2008
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-20	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/18/2008
Pyrene	58	30		mg/Kg	1	4/18/2008
Pyridine	ND	75		mg/Kg	1	4/18/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/18/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
Surr: 2,4,6-Tribromophenol	30.1	35.5-141	S	%REC	1	4/18/2008
Surr: 2-Fluorobiphenyl	73.9	30.4-128		%REC	1	4/18/2008
Surr: 2-Fluorophenol	89.8	28.1-129		%REC	1	4/18/2008
Surr: 4-Terphenyl-d14	35.9	34.6-151		%REC	1	4/18/2008
Surr: Nitrobenzene-d5	81.0	26.5-122		%REC	1	4/18/2008
Surr: Phenol-d5	66.8	37.6-118		%REC	1	4/18/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
Toluene	1.3	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
Ethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
1,2,4-Trimethylbenzene	2.9	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
1,3,5-Trimethylbenzene	0.61	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
Naphthalene	5.1	1.0		mg/Kg	10	4/20/2008 1:40:28 AM
1-Methylnaphthalene	23	2.0		mg/Kg	10	4/20/2008 1:40:28 AM
2-Methylnaphthalene	34	2.0		mg/Kg	10	4/20/2008 1:40:28 AM
Acetone	ND	7.5		mg/Kg	10	4/20/2008 1:40:28 AM
Bromobenzene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
Bromoform	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
Bromomethane	ND	1.0		mg/Kg	10	4/20/2008 1:40:28 AM
2-Butanone	ND	5.0		mg/Kg	10	4/20/2008 1:40:28 AM
Carbon disulfide	ND	5.0		mg/Kg	10	4/20/2008 1:40:28 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/20/2008 1:40:28 AM
Chlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
Chloroethane	ND	1.0		mg/Kg	10	4/20/2008 1:40:28 AM
Chloroform	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
Chloromethane	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/20/2008 1:40:28 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	BD-1
Lab Order:	0804138	**Collection Date:**	4/8/2008
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-20	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
Dibromomethane	ND	1.0		mg/Kg	10	4/20/2008 1:40:28 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/20/2008 1:40:28 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/20/2008 1:40:28 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/20/2008 1:40:28 AM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/20/2008 1:40:28 AM
2-Hexanone	ND	5.0		mg/Kg	10	4/20/2008 1:40:28 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/20/2008 1:40:28 AM
Methylene chloride	ND	1.5		mg/Kg	10	4/20/2008 1:40:28 AM
n-Butylbenzene	0.65	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
Styrene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/20/2008 1:40:28 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/20/2008 1:40:28 AM
Vinyl chloride	ND	0.50		mg/Kg	10	4/20/2008 1:40:28 AM
Xylenes, Total	3.1	1.0		mg/Kg	10	4/20/2008 1:40:28 AM
Surr: 1,2-Dichloroethane-d4	94.0	68.7-122		%REC	10	4/20/2008 1:40:28 AM
Surr: 4-Bromofluorobenzene	94.4	79.3-126		%REC	10	4/20/2008 1:40:28 AM
Surr: Dibromofluoromethane	99.4	84.4-119		%REC	10	4/20/2008 1:40:28 AM
Surr: Toluene-d8	95.0	86.5-121		%REC	10	4/20/2008 1:40:28 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EB040808
Lab Order:	0804138	**Collection Date:**	4/8/2008 4:45:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-21	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
Toluene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
Ethylbenzene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
Naphthalene	ND	2.0		µg/L	1	4/19/2008 12:33:24 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/19/2008 12:33:24 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/19/2008 12:33:24 PM
Acetone	ND	10		µg/L	1	4/19/2008 12:33:24 PM
Bromobenzene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
Bromodichloromethane	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
Bromoform	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
Bromomethane	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
2-Butanone	ND	10		µg/L	1	4/19/2008 12:33:24 PM
Carbon disulfide	ND	10		µg/L	1	4/19/2008 12:33:24 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
Chlorobenzene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
Chloroethane	ND	2.0		µg/L	1	4/19/2008 12:33:24 PM
Chloroform	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
Chloromethane	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
2-Chlorotoluene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
4-Chlorotoluene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
cis-1,2-DCE	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/19/2008 12:33:24 PM
Dibromochloromethane	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
Dibromomethane	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/19/2008 12:33:24 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
2-Hexanone	ND	10		µg/L	1	4/19/2008 12:33:24 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EB040808
Lab Order:	0804138	**Collection Date:**	4/8/2008 4:45:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-21	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Isopropylbenzene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/19/2008 12:33:24 PM
Methylene Chloride	ND	3.0		µg/L	1	4/19/2008 12:33:24 PM
n-Butylbenzene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
n-Propylbenzene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
sec-Butylbenzene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
Styrene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
tert-Butylbenzene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/19/2008 12:33:24 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
trans-1,2-DCE	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/19/2008 12:33:24 PM
Vinyl chloride	ND	1.0		µg/L	1	4/19/2008 12:33:24 PM
Xylenes, Total	ND	1.5		µg/L	1	4/19/2008 12:33:24 PM
Surr: 1,2-Dichloroethane-d4	108	68.1-123		%REC	1	4/19/2008 12:33:24 PM
Surr: 4-Bromofluorobenzene	102	53.2-145		%REC	1	4/19/2008 12:33:24 PM
Surr: Dibromofluoromethane	101	68.5-119		%REC	1	4/19/2008 12:33:24 PM
Surr: Toluene-d8	104	84-131		%REC	1	4/19/2008 12:33:24 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EB040908
Lab Order:	0804138	**Collection Date:**	4/10/2008 7:35:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-22	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
Toluene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
Ethylbenzene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
Naphthalene	ND	2.0		µg/L	1	4/19/2008 1:02:11 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/19/2008 1:02:11 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/19/2008 1:02:11 PM
Acetone	ND	10		µg/L	1	4/19/2008 1:02:11 PM
Bromobenzene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
Bromodichloromethane	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
Bromoform	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
Bromomethane	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
2-Butanone	ND	10		µg/L	1	4/19/2008 1:02:11 PM
Carbon disulfide	ND	10		µg/L	1	4/19/2008 1:02:11 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
Chlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
Chloroethane	ND	2.0		µg/L	1	4/19/2008 1:02:11 PM
Chloroform	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
Chloromethane	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
2-Chlorotoluene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
4-Chlorotoluene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
cis-1,2-DCE	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/19/2008 1:02:11 PM
Dibromochloromethane	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
Dibromomethane	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/19/2008 1:02:11 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
2-Hexanone	ND	10		µg/L	1	4/19/2008 1:02:11 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EB040908
Lab Order:	0804138	**Collection Date:**	4/10/2008 7:35:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-22	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Isopropylbenzene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/19/2008 1:02:11 PM
Methylene Chloride	ND	3.0		µg/L	1	4/19/2008 1:02:11 PM
n-Butylbenzene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
n-Propylbenzene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
sec-Butylbenzene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
Styrene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
tert-Butylbenzene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/19/2008 1:02:11 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
trans-1,2-DCE	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/19/2008 1:02:11 PM
Vinyl chloride	ND	1.0		µg/L	1	4/19/2008 1:02:11 PM
Xylenes, Total	ND	1.5		µg/L	1	4/19/2008 1:02:11 PM
Surr: 1,2-Dichloroethane-d4	110	68.1-123		%REC	1	4/19/2008 1:02:11 PM
Surr: 4-Bromofluorobenzene	101	53.2-145		%REC	1	4/19/2008 1:02:11 PM
Surr: Dibromofluoromethane	99.7	68.5-119		%REC	1	4/19/2008 1:02:11 PM
Surr: Toluene-d8	97.9	64-131		%REC	1	4/19/2008 1:02:11 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit
	S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EB041008
Lab Order:	0804138	**Collection Date:**	4/11/2008 8:35:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-23	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
Toluene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
Ethylbenzene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
Naphthalene	ND	2.0		µg/L	1	4/19/2008 1:31:01 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/19/2008 1:31:01 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/19/2008 1:31:01 PM
Acetone	ND	10		µg/L	1	4/19/2008 1:31:01 PM
Bromobenzene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
Bromodichloromethane	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
Bromoform	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
Bromomethane	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
2-Butanone	ND	10		µg/L	1	4/19/2008 1:31:01 PM
Carbon disulfide	ND	10		µg/L	1	4/19/2008 1:31:01 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
Chlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
Chloroethane	ND	2.0		µg/L	1	4/19/2008 1:31:01 PM
Chloroform	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
Chloromethane	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
2-Chlorotoluene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
4-Chlorotoluene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
cis-1,2-DCE	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/19/2008 1:31:01 PM
Dibromochloromethane	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
Dibromomethane	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/19/2008 1:31:01 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
2-Hexanone	ND	10		µg/L	1	4/19/2008 1:31:01 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EB041008
Lab Order:	0804138	**Collection Date:**	4/11/2008 8:35:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-23	**Matrix:**	AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Isopropylbenzene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/19/2008 1:31:01 PM
Methylene Chloride	ND	3.0		µg/L	1	4/19/2008 1:31:01 PM
n-Butylbenzene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
n-Propylbenzene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
sec-Butylbenzene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
Styrene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
tert-Butylbenzene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/19/2008 1:31:01 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
trans-1,2-DCE	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/19/2008 1:31:01 PM
Vinyl chloride	ND	1.0		µg/L	1	4/19/2008 1:31:01 PM
Xylenes, Total	ND	1.5		µg/L	1	4/19/2008 1:31:01 PM
Surr: 1,2-Dichloroethane-d4	110	68.1-123		%REC	1	4/19/2008 1:31:01 PM
Surr: 4-Bromofluorobenzene	106	53.2-145		%REC	1	4/19/2008 1:31:01 PM
Surr: Dibromofluoromethane	95.8	68.5-119		%REC	1	4/19/2008 1:31:01 PM
Surr: Toluene-d8	98.6	64-131		%REC	1	4/19/2008 1:31:01 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Trip Blank
Lab Order:	0804138	**Collection Date:**	
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-24	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
Toluene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
Ethylbenzene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
Naphthalene	ND	2.0		µg/L	1	4/19/2008 1:59:54 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/19/2008 1:59:54 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	4/19/2008 1:59:54 PM
Acetone	ND	10		µg/L	1	4/19/2008 1:59:54 PM
Bromobenzene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
Bromodichloromethane	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
Bromoform	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
Bromomethane	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
2-Butanone	ND	10		µg/L	1	4/19/2008 1:59:54 PM
Carbon disulfide	ND	10		µg/L	1	4/19/2008 1:59:54 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
Chlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
Chloroethane	ND	2.0		µg/L	1	4/19/2008 1:59:54 PM
Chloroform	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
Chloromethane	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
2-Chlorotoluene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
4-Chlorotoluene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
cis-1,2-DCE	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/19/2008 1:59:54 PM
Dibromochloromethane	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
Dibromomethane	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	4/19/2008 1:59:54 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
2-Hexanone	ND	10		µg/L	1	4/19/2008 1:59:54 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	Trip Blank
Lab Order:	0804138	**Collection Date:**	
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-24	**Matrix:**	TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Isopropylbenzene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	4/19/2008 1:59:54 PM
Methylene Chloride	ND	3.0		µg/L	1	4/19/2008 1:59:54 PM
n-Butylbenzene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
n-Propylbenzene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
sec-Butylbenzene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
Styrene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
tert-Butylbenzene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/19/2008 1:59:54 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
trans-1,2-DCE	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/19/2008 1:59:54 PM
Vinyl chloride	ND	1.0		µg/L	1	4/19/2008 1:59:54 PM
Xylenes, Total	ND	1.5		µg/L	1	4/19/2008 1:59:54 PM
Surr: 1,2-Dichloroethane-d4	109	68.1-123		%REC	1	4/19/2008 1:59:54 PM
Surr: 4-Bromofluorobenzene	102	53.2-145		%REC	1	4/19/2008 1:59:54 PM
Surr: Dibromofluoromethane	101	68.5-119		%REC	1	4/19/2008 1:59:54 PM
Surr: Toluene-d8	100	64-131		%REC	1	4/19/2008 1:59:54 PM

Qualifiers:	*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank	
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level	
	ND	Not Detected at the Reporting Limit	RL	Reporting Limit	
	S	Spike recovery outside accepted recovery limits			

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-1-HP
Lab Order:	0804138	**Collection Date:**	4/8/2008 11:05:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-25	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	120000	5000		mg/Kg	50	4/17/2008 12:54:40 PM
Motor Oil Range Organics (MRO)	28000	25000		mg/Kg	50	4/17/2008 12:54:40 PM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 12:54:40 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/19/2008 2:53:20 AM
Surr: BFB	98.4	84-138		%REC	20	4/19/2008 2:53:20 AM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	7.4	1.6		mg/Kg	50	4/28/2008 2:57:44 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	18	2.5		mg/Kg	1	4/23/2008 8:12:22 AM
Barium	81	0.20		mg/Kg	2	4/23/2008 9:27:00 AM
Cadmium	2.4	0.10		mg/Kg	1	4/23/2008 8:12:22 AM
Chromium	29	0.30		mg/Kg	1	4/23/2008 8:12:22 AM
Lead	32	0.25		mg/Kg	1	4/28/2008 9:41:37 AM
Selenium	ND	5.0		mg/Kg	2	4/23/2008 9:27:00 AM
Silver	ND	0.25		mg/Kg	1	4/28/2008 9:41:37 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/18/2008
Acenaphthylene	ND	30		mg/Kg	1	4/18/2008
Aniline	ND	30		mg/Kg	1	4/18/2008
Anthracene	ND	30		mg/Kg	1	4/18/2008
Azobenzene	ND	30		mg/Kg	1	4/18/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/18/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/18/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/18/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzoic acid	ND	50		mg/Kg	1	4/18/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/18/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/18/2008
Carbazole	ND	30		mg/Kg	1	4/18/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/18/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/18/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-1-HP
Lab Order:	0804138	**Collection Date:**	4/8/2008 11:05:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-25	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/18/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/18/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Chrysene	42	30		mg/Kg	1	4/18/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/18/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/18/2008
Dibenzofuran	ND	30		mg/Kg	1	4/18/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/18/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/18/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/18/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
Fluoranthene	ND	38		mg/Kg	1	4/18/2008
Fluorene	ND	30		mg/Kg	1	4/18/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/18/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/18/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/18/2008
Hexachloroethane	ND	30		mg/Kg	1	4/18/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/18/2008
Isophorone	ND	75		mg/Kg	1	4/18/2008
2-Methylnaphthalene	ND	38		mg/Kg	1	4/18/2008
2-Methylphenol	ND	75		mg/Kg	1	4/18/2008
3+4-Methylphenol	99	30		mg/Kg	1	4/18/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/18/2008
Naphthalene	ND	30		mg/Kg	1	4/18/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/18/2008
Nitrobenzene	ND	75		mg/Kg	1	4/18/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/18/2008
Phenanthrene	50	30		mg/Kg	1	4/18/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-1-HP
Lab Order:	0804138	**Collection Date:**	4/8/2008 11:05:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-25	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/18/2008
Pyrene	38	30		mg/Kg	1	4/18/2008
Pyridine	ND	75		mg/Kg	1	4/18/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/18/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
Surr: 2,4,6-Tribromophenol	56.9	35.5-141		%REC	1	4/18/2008
Surr: 2-Fluorobiphenyl	81.4	30.4-128		%REC	1	4/18/2008
Surr: 2-Fluorophenol	89.5	28.1-129		%REC	1	4/18/2008
Surr: 4-Terphenyl-d14	52.3	34.6-151		%REC	1	4/18/2008
Surr: Nitrobenzene-d5	60.9	26.5-122		%REC	1	4/18/2008
Surr: Phenol-d5	69.9	37.6-118		%REC	1	4/18/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
Toluene	0.60	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
Ethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
1,2,4-Trimethylbenzene	0.93	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
Naphthalene	ND	1.0		mg/Kg	10	4/20/2008 4:02:15 AM
1-Methylnaphthalene	2.5	2.0		mg/Kg	10	4/20/2008 4:02:15 AM
2-Methylnaphthalene	2.4	2.0		mg/Kg	10	4/20/2008 4:02:15 AM
Acetone	ND	7.5		mg/Kg	10	4/20/2008 4:02:15 AM
Bromobenzene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
Bromoform	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
Bromomethane	ND	1.0		mg/Kg	10	4/20/2008 4:02:15 AM
2-Butanone	ND	5.0		mg/Kg	10	4/20/2008 4:02:15 AM
Carbon disulfide	ND	5.0		mg/Kg	10	4/20/2008 4:02:15 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/20/2008 4:02:15 AM
Chlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
Chloroethane	ND	1.0		mg/Kg	10	4/20/2008 4:02:15 AM
Chloroform	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
Chloromethane	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/20/2008 4:02:15 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-1-HP
Lab Order:	0804138	**Collection Date:**	4/8/2008 11:05:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-25	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Dibromochloromethane	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
Dibromomethane	ND	1.0		mg/Kg	10	4/20/2008 4:02:15 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/20/2008 4:02:15 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/20/2008 4:02:15 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/20/2008 4:02:15 AM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/20/2008 4:02:15 AM
2-Hexanone	ND	5.0		mg/Kg	10	4/20/2008 4:02:15 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/20/2008 4:02:15 AM
Methylene chloride	ND	1.5		mg/Kg	10	4/20/2008 4:02:15 AM
n-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
Styrene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/20/2008 4:02:15 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/20/2008 4:02:15 AM
Vinyl chloride	ND	0.50		mg/Kg	10	4/20/2008 4:02:15 AM
Xylenes, Total	1.9	1.0		mg/Kg	10	4/20/2008 4:02:15 AM
Surr: 1,2-Dichloroethane-d4	96.6	68.7-122		%REC	10	4/20/2008 4:02:15 AM
Surr: 4-Bromofluorobenzene	94.9	79.3-126		%REC	10	4/20/2008 4:02:15 AM
Surr: Dibromofluoromethane	98.1	64.4-119		%REC	10	4/20/2008 4:02:15 AM
Surr: Toluene-d8	101	86.5-121		%REC	10	4/20/2008 4:02:15 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-2-HP
Lab Order:	0804138	**Collection Date:**	4/8/2008 3:15:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-26	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						**Analyst: SCC**
Diesel Range Organics (DRO)	130000	5000		mg/Kg	50	4/17/2008 1:28:44 PM
Motor Oil Range Organics (MRO)	ND	25000		mg/Kg	50	4/17/2008 1:28:44 PM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 1:28:44 PM
EPA METHOD 8015B: GASOLINE RANGE						**Analyst: NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/19/2008 3:23:21 AM
Surr: BFB	104	84-138		%REC	20	4/19/2008 3:23:21 AM
EPA METHOD 7471: MERCURY						**Analyst: SNV**
Mercury	6.4	1.6		mg/Kg	50	4/28/2008 3:00:59 PM
EPA METHOD 6010B: SOIL METALS						**Analyst: NMO**
Arsenic	20	2.5		mg/Kg	1	4/23/2008 8:15:00 AM
Barium	300	1.0		mg/Kg	10	4/23/2008 9:29:41 AM
Cadmium	0.73	0.10		mg/Kg	1	4/23/2008 8:15:00 AM
Chromium	22	0.30		mg/Kg	1	4/23/2008 8:15:00 AM
Lead	39	0.25		mg/Kg	1	4/28/2008 9:44:15 AM
Selenium	ND	25		mg/Kg	10	4/23/2008 9:29:41 AM
Silver	ND	0.25		mg/Kg	1	4/28/2008 9:44:15 AM
EPA METHOD 8270C: SEMIVOLATILES						**Analyst: JDC**
Acenaphthene	ND	30		mg/Kg	1	4/18/2008
Acenaphthylene	ND	30		mg/Kg	1	4/18/2008
Aniline	ND	30		mg/Kg	1	4/18/2008
Anthracene	ND	30		mg/Kg	1	4/18/2008
Azobenzene	ND	30		mg/Kg	1	4/18/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/18/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/18/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/18/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzoic acid	ND	60		mg/Kg	1	4/18/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/18/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/18/2008
Carbazole	ND	30		mg/Kg	1	4/18/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/18/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/18/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-2-HP
Lab Order:	0804138	**Collection Date:**	4/8/2008 3:15:00 PM
Project:	Evaporation Pond/Acration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-26	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/18/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/18/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Chrysene	ND	30		mg/Kg	1	4/18/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/18/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/18/2008
Dibenzofuran	ND	30		mg/Kg	1	4/18/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/18/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/18/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/18/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
Fluoranthene	ND	38		mg/Kg	1	4/18/2008
Fluorene	36	30		mg/Kg	1	4/18/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/18/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/18/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/18/2008
Hexachloroethane	ND	30		mg/Kg	1	4/18/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/18/2008
Isophorone	ND	75		mg/Kg	1	4/18/2008
2-Methylnaphthalene	140	38		mg/Kg	1	4/18/2008
2-Methylphenol	ND	75		mg/Kg	1	4/18/2008
3+4-Methylphenol	36	30		mg/Kg	1	4/18/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/18/2008
Naphthalene	ND	30		mg/Kg	1	4/18/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/18/2008
Nitrobenzene	ND	75		mg/Kg	1	4/18/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/18/2008
Phenanthrene	93	30		mg/Kg	1	4/18/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-2-HP
Lab Order:	0804138	**Collection Date:**	4/8/2008 3:15:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-26	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/18/2008
Pyrene	ND	30		mg/Kg	1	4/18/2008
Pyridine	ND	75		mg/Kg	1	4/18/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/18/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
Surr: 2,4,6-Tribromophenol	52.0	35.5-141		%REC	1	4/18/2008
Surr: 2-Fluorobiphenyl	79.6	30.4-128		%REC	1	4/18/2008
Surr: 2-Fluorophenol	94.1	28.1-129		%REC	1	4/18/2008
Surr: 4-Terphenyl-d14	45.5	34.6-151		%REC	1	4/18/2008
Surr: Nitrobenzene-d5	72.9	26.5-122		%REC	1	4/18/2008
Surr: Phenol-d5	69.5	37.6-118		%REC	1	4/18/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
Toluene	1.1	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
Ethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
1,2,4-Trimethylbenzene	3.0	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
1,3,5-Trimethylbenzene	0.71	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
Naphthalene	3.2	1.0		mg/Kg	10	4/20/2008 4:37:50 AM
1-Methylnaphthalene	11	2.0		mg/Kg	10	4/20/2008 4:37:50 AM
2-Methylnaphthalene	15	2.0		mg/Kg	10	4/20/2008 4:37:50 AM
Acetone	ND	7.5		mg/Kg	10	4/20/2008 4:37:50 AM
Bromobenzene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
Bromoform	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
Bromomethane	ND	1.0		mg/Kg	10	4/20/2008 4:37:50 AM
2-Butanone	ND	5.0		mg/Kg	10	4/20/2008 4:37:50 AM
Carbon disulfide	ND	5.0		mg/Kg	10	4/20/2008 4:37:50 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/20/2008 4:37:50 AM
Chlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
Chloroethane	ND	1.0		mg/Kg	10	4/20/2008 4:37:50 AM
Chloroform	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
Chloromethane	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/20/2008 4:37:50 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-2-HP
Lab Order:	0804138	**Collection Date:**	4/8/2008 3:15:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-26	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
Dibromomethane	ND	1.0		mg/Kg	10	4/20/2008 4:37:50 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/20/2008 4:37:50 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/20/2008 4:37:50 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/20/2008 4:37:50 AM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/20/2008 4:37:50 AM
2-Hexanone	ND	5.0		mg/Kg	10	4/20/2008 4:37:50 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/20/2008 4:37:50 AM
Methylene chloride	ND	1.5		mg/Kg	10	4/20/2008 4:37:50 AM
n-Butylbenzene	0.68	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
Styrene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/20/2008 4:37:50 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/20/2008 4:37:50 AM
Vinyl chloride	ND	0.50		mg/Kg	10	4/20/2008 4:37:50 AM
Xylenes, Total	3.8	1.0		mg/Kg	10	4/20/2008 4:37:50 AM
Surr: 1,2-Dichloroethane-d4	98.2	68.7-122		%REC	10	4/20/2008 4:37:50 AM
Surr: 4-Bromofluorobenzene	89.8	79.3-126		%REC	10	4/20/2008 4:37:50 AM
Surr: Dibromofluoromethane	99.7	64.4-119		%REC	10	4/20/2008 4:37:50 AM
Surr: Toluene-d8	97.3	86.5-121		%REC	10	4/20/2008 4:37:50 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-3-HP
Lab Order:	0804138	**Collection Date:**	4/8/2008 12:15:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-27	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	110000	5000		mg/Kg	50	4/17/2008 2:02:53 PM
Motor Oil Range Organics (MRO)	ND	25000		mg/Kg	50	4/17/2008 2:02:53 PM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 2:02:53 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/19/2008 3:53:29 AM
Surr: BFB	105	84-138		%REC	20	4/19/2008 3:53:29 AM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	2.1	1.6		mg/Kg	50	4/28/2008 3:04:16 PM
EPA METHOD 6010B: SOIL METALS						Analyst: NMO
Arsenic	9.8	2.5		mg/Kg	1	4/23/2008 8:17:38 AM
Barium	280	1.0		mg/Kg	10	4/23/2008 9:38:38 AM
Cadmium	0.26	0.10		mg/Kg	1	4/23/2008 8:17:38 AM
Chromium	15	0.30		mg/Kg	1	4/23/2008 8:17:38 AM
Lead	12	0.25		mg/Kg	1	4/28/2008 9:46:47 AM
Selenium	ND	25		mg/Kg	10	4/23/2008 9:38:38 AM
Silver	ND	0.25		mg/Kg	1	4/28/2008 9:46:47 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	30		mg/Kg	1	4/18/2008
Acenaphthylene	ND	30		mg/Kg	1	4/18/2008
Aniline	ND	30		mg/Kg	1	4/18/2008
Anthracene	ND	30		mg/Kg	1	4/18/2008
Azobenzene	ND	30		mg/Kg	1	4/18/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/18/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/18/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/18/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzoic acid	ND	50		mg/Kg	1	4/18/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/18/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/18/2008
Carbazole	ND	30		mg/Kg	1	4/18/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/18/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/18/2008

Qualifiers:

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- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-3-HP
Lab Order:	0804138	**Collection Date:**	4/8/2008 12:15:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-27	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/18/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/18/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Chrysene	ND	30		mg/Kg	1	4/18/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/18/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/18/2008
Dibenzofuran	ND	30		mg/Kg	1	4/18/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/18/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/18/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/18/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
Fluoranthene	ND	38		mg/Kg	1	4/18/2008
Fluorene	32	30		mg/Kg	1	4/18/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/18/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/18/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/18/2008
Hexachloroethane	ND	30		mg/Kg	1	4/18/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/18/2008
Isophorone	ND	75		mg/Kg	1	4/18/2008
2-Methylnaphthalene	110	38		mg/Kg	1	4/18/2008
2-Methylphenol	ND	75		mg/Kg	1	4/18/2008
3+4-Methylphenol	44	30		mg/Kg	1	4/18/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/18/2008
Naphthalene	ND	30		mg/Kg	1	4/18/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/18/2008
Nitrobenzene	ND	75		mg/Kg	1	4/18/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/18/2008
Phenanthrene	89	30		mg/Kg	1	4/18/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-3-HP
Lab Order:	0804138	**Collection Date:**	4/8/2008 12:15:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-27	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/18/2008
Pyrene	ND	30		mg/Kg	1	4/18/2008
Pyridine	ND	75		mg/Kg	1	4/18/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/18/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
Surr: 2,4,6-Tribromophenol	47.4	35.5-141		%REC	1	4/18/2008
Surr: 2-Fluorobiphenyl	72.3	30.4-128		%REC	1	4/18/2008
Surr: 2-Fluorophenol	84.8	28.1-129		%REC	1	4/18/2008
Surr: 4-Terphenyl-d14	65.5	34.6-161		%REC	1	4/18/2008
Surr: Nitrobenzene-d5	62.5	26.5-122		%REC	1	4/18/2008
Surr: Phenol-d5	70.2	37.6-118		%REC	1	4/18/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
Toluene	0.53	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
Ethylbenzene	0.62	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
1,2,4-Trimethylbenzene	3.8	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
1,3,5-Trimethylbenzene	0.87	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
Naphthalene	3.4	1.0		mg/Kg	10	4/20/2008 5:12:55 AM
1-Methylnaphthalene	12	2.0		mg/Kg	10	4/20/2008 5:12:55 AM
2-Methylnaphthalene	17	2.0		mg/Kg	10	4/20/2008 5:12:55 AM
Acetone	ND	7.5		mg/Kg	10	4/20/2008 5:12:55 AM
Bromobenzene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
Bromoform	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
Bromomethane	ND	1.0		mg/Kg	10	4/20/2008 5:12:55 AM
2-Butanone	ND	5.0		mg/Kg	10	4/20/2008 5:12:55 AM
Carbon disulfide	ND	5.0		mg/Kg	10	4/20/2008 5:12:55 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/20/2008 5:12:55 AM
Chlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
Chloroethane	ND	1.0		mg/Kg	10	4/20/2008 5:12:55 AM
Chloroform	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
Chloromethane	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/20/2008 5:12:55 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-3-HP
Lab Order:	0804138	**Collection Date:**	4/8/2008 12:15:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-27	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
Dibromomethane	ND	1.0		mg/Kg	10	4/20/2008 5:12:55 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/20/2008 5:12:55 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/20/2008 5:12:55 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/20/2008 5:12:55 AM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/20/2008 5:12:55 AM
2-Hexanone	ND	5.0		mg/Kg	10	4/20/2008 5:12:55 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/20/2008 5:12:55 AM
Methylene chloride	ND	1.5		mg/Kg	10	4/20/2008 5:12:55 AM
n-Butylbenzene	0.89	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
Styrene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/20/2008 5:12:55 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/20/2008 5:12:55 AM
Vinyl chloride	ND	0.50		mg/Kg	10	4/20/2008 5:12:55 AM
Xylenes, Total	4.3	1.0		mg/Kg	10	4/20/2008 5:12:55 AM
Surr: 1,2-Dichloroethane-d4	95.4	68.7-122		%REC	10	4/20/2008 5:12:55 AM
Surr: 4-Bromofluorobenzene	84.0	79.3-126		%REC	10	4/20/2008 5:12:55 AM
Surr: Dibromofluoromethane	103	64.4-119		%REC	10	4/20/2008 5:12:55 AM
Surr: Toluene-d8	92.9	86.5-121		%REC	10	4/20/2008 5:12:55 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0804138
Project: Evaporation Pond/Aeration Lagoon
Lab ID: 0804138-28

Client Sample ID: AL2-4-HP
Collection Date: 4/8/2008 10:15:00 AM
Date Received: 4/11/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	140000	6000		mg/Kg	50	4/17/2008 2:36:57 PM
Motor Oil Range Organics (MRO)	29000	25000		mg/Kg	50	4/17/2008 2:36:57 PM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 2:36:57 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/19/2008 4:23:35 AM
Surr: BFB	104	84-138		%REC	20	4/19/2008 4:23:35 AM
EPA METHOD 7471: MERCURY						Analyst: SNV
Mercury	6.4	1.6		mg/Kg	50	4/28/2008 3:10:53 PM
EPA METHOD 6010B: SOIL METALS						Analyst: NMO
Arsenic	21	2.5		mg/Kg	1	4/23/2008 8:20:15 AM
Barium	270	1.0		mg/Kg	10	4/23/2008 9:41:16 AM
Cadmium	5.2	0.10		mg/Kg	1	4/23/2008 8:20:15 AM
Chromium	45	0.30		mg/Kg	1	4/23/2008 8:20:15 AM
Lead	55	2.5		mg/Kg	10	4/28/2008 11:27:26 AM
Selenium	ND	25		mg/Kg	10	4/23/2008 9:41:16 AM
Silver	ND	0.25		mg/Kg	1	4/28/2008 9:49:16 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Acenaphthene	ND	30		mg/Kg	1	4/18/2008
Acenaphthylene	ND	30		mg/Kg	1	4/18/2008
Aniline	ND	30		mg/Kg	1	4/18/2008
Anthracene	ND	30		mg/Kg	1	4/18/2008
Azobenzene	ND	30		mg/Kg	1	4/18/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/18/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/18/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/18/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/18/2008
Benzoic acid	ND	60		mg/Kg	1	4/18/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/18/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/18/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/18/2008
Carbazole	ND	30		mg/Kg	1	4/18/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/18/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/18/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-4-HP
Lab Order:	0804138	**Collection Date:**	4/8/2008 10:15:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-28	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/18/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/18/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/18/2008
Chrysene	ND	30		mg/Kg	1	4/18/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/18/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/18/2008
Dibenzofuran	ND	30		mg/Kg	1	4/18/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/18/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/18/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/18/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/18/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/18/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/18/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/18/2008
Fluoranthene	ND	38		mg/Kg	1	4/18/2008
Fluorene	ND	30		mg/Kg	1	4/18/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/18/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/18/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/18/2008
Hexachloroethane	ND	30		mg/Kg	1	4/18/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/18/2008
Isophorone	ND	75		mg/Kg	1	4/18/2008
2-Methylnaphthalene	57	38		mg/Kg	1	4/18/2008
2-Methylphenol	ND	75		mg/Kg	1	4/18/2008
3+4-Methylphenol	100	30		mg/Kg	1	4/18/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/18/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/18/2008
Naphthalene	ND	30		mg/Kg	1	4/18/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/18/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/18/2008
Nitrobenzene	ND	75		mg/Kg	1	4/18/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/18/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/18/2008
Phenanthrene	55	30		mg/Kg	1	4/18/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-4-HP
Lab Order:	0804138	**Collection Date:**	4/8/2008 10:15:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-28	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	43	30		mg/Kg	1	4/18/2008
Pyrene	ND	30		mg/Kg	1	4/18/2008
Pyridine	ND	75		mg/Kg	1	4/18/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/18/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/18/2008
Surr: 2,4,6-Tribromophenol	56.1	35.5-141		%REC	1	4/18/2008
Surr: 2-Fluorobiphenyl	86.0	30.4-128		%REC	1	4/18/2008
Surr: 2-Fluorophenol	90.9	28.1-129		%REC	1	4/18/2008
Surr: 4-Terphenyl-d14	55.1	34.6-151		%REC	1	4/18/2008
Surr: Nitrobenzene-d5	69.9	26.5-122		%REC	1	4/18/2008
Surr: Phenol-d5	73.8	37.6-118		%REC	1	4/18/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
Toluene	1.1	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
Ethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
Naphthalene	1.6	1.0		mg/Kg	10	4/20/2008 5:48:30 AM
1-Methylnaphthalene	5.7	2.0		mg/Kg	10	4/20/2008 5:48:30 AM
2-Methylnaphthalene	7.2	2.0		mg/Kg	10	4/20/2008 5:48:30 AM
Acetone	ND	7.5		mg/Kg	10	4/20/2008 5:48:30 AM
Bromobenzene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
Bromoform	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
Bromomethane	ND	1.0		mg/Kg	10	4/20/2008 5:48:30 AM
2-Butanone	ND	5.0		mg/Kg	10	4/20/2008 5:48:30 AM
Carbon disulfide	ND	5.0		mg/Kg	10	4/20/2008 5:48:30 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/20/2008 5:48:30 AM
Chlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
Chloroethane	ND	1.0		mg/Kg	10	4/20/2008 5:48:30 AM
Chloroform	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
Chloromethane	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
Dibromochloromethane	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
Dibromomethane	ND	1.0		mg/Kg	10	4/20/2008 5:48:30 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-4-HP
Lab Order:	0804138	**Collection Date:**	4/8/2008 10:15:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-28	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/20/2008 5:48:30 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/20/2008 5:48:30 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/20/2008 5:48:30 AM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/20/2008 5:48:30 AM
2-Hexanone	ND	5.0		mg/Kg	10	4/20/2008 5:48:30 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/20/2008 5:48:30 AM
Methylene chloride	ND	1.5		mg/Kg	10	4/20/2008 5:48:30 AM
n-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
Styrene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/20/2008 5:48:30 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/20/2008 5:48:30 AM
Vinyl chloride	ND	0.50		mg/Kg	10	4/20/2008 5:48:30 AM
Xylenes, Total	3.2	1.0		mg/Kg	10	4/20/2008 5:48:30 AM
Surr: 1,2-Dichloroethane-d4	98.5	68.7-122		%REC	10	4/20/2008 5:48:30 AM
Surr: 4-Bromofluorobenzene	93.6	79.3-126		%REC	10	4/20/2008 5:48:30 AM
Surr: Dibromofluoromethane	104	64.4-119		%REC	10	4/20/2008 5:48:30 AM
Surr: Toluene-d8	98.0	86.5-121		%REC	10	4/20/2008 5:48:30 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-5-HP
Lab Order:	0804138	**Collection Date:**	4/9/2008 8:20:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-29	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	51000	5000		mg/Kg	50	4/18/2008 5:30:48 PM
Motor Oil Range Organics (MRO)	ND	25000		mg/Kg	50	4/18/2008 5:30:48 PM
Surr: DNOP	0	61.7-135	S	%REC	50	4/18/2008 5:30:48 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/19/2008 4:53:43 AM
Surr: BFB	102	84-138		%REC	20	4/19/2008 4:53:43 AM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	4.7	1.6		mg/Kg	50	4/28/2008 3:14:09 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	14	2.5		mg/Kg	1	4/23/2008 8:29:01 AM
Barium	160	1.0		mg/Kg	10	4/23/2008 9:44:13 AM
Cadmium	0.62	0.10		mg/Kg	1	4/23/2008 8:29:01 AM
Chromium	53	3.0		mg/Kg	10	4/23/2008 9:44:13 AM
Lead	23	0.25		mg/Kg	1	4/28/2008 10:01:18 AM
Selenium	ND	25		mg/Kg	10	4/23/2008 9:44:13 AM
Silver	ND	0.25		mg/Kg	1	4/28/2008 10:01:18 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/20/2008
Acenaphthylene	ND	30		mg/Kg	1	4/20/2008
Aniline	ND	30		mg/Kg	1	4/20/2008
Anthracene	ND	30		mg/Kg	1	4/20/2008
Azobenzene	ND	30		mg/Kg	1	4/20/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/20/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/20/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/20/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/20/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/20/2008
Benzoic acid	ND	60		mg/Kg	1	4/20/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/20/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/20/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/20/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/20/2008
Carbazole	ND	30		mg/Kg	1	4/20/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/20/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/20/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-5-HP
Lab Order:	0804138	**Collection Date:**	4/9/2008 8:20:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-29	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/20/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/20/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/20/2008
Chrysene	ND	30		mg/Kg	1	4/20/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/20/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/20/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/20/2008
Dibenzofuran	ND	30		mg/Kg	1	4/20/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/20/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/20/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/20/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/20/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/20/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/20/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/20/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/20/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/20/2008
Fluoranthene	ND	38		mg/Kg	1	4/20/2008
Fluorene	ND	30		mg/Kg	1	4/20/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/20/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/20/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/20/2008
Hexachloroethane	ND	30		mg/Kg	1	4/20/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/20/2008
Isophorone	ND	75		mg/Kg	1	4/20/2008
2-Methylnaphthalene	ND	38		mg/Kg	1	4/20/2008
2-Methylphenol	ND	75		mg/Kg	1	4/20/2008
3+4-Methylphenol	ND	30		mg/Kg	1	4/20/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/20/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/20/2008
Naphthalene	ND	30		mg/Kg	1	4/20/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/20/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/20/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/20/2008
Nitrobenzene	ND	75		mg/Kg	1	4/20/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/20/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/20/2008
Pentachlorophenol	ND	60		mg/Kg	1	4/20/2008
Phenanthrene	ND	30		mg/Kg	1	4/20/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-5-HP
Lab Order:	0804138	**Collection Date:**	4/9/2008 8:20:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-29	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/20/2008
Pyrene	ND	30		mg/Kg	1	4/20/2008
Pyridine	ND	75		mg/Kg	1	4/20/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/20/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/20/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/20/2008
Surr: 2,4,6-Tribromophenol	73.4	35.5-141		%REC	1	4/20/2008
Surr: 2-Fluorobiphenyl	91.8	30.4-128		%REC	1	4/20/2008
Surr: 2-Fluorophenol	82.7	28.1-129		%REC	1	4/20/2008
Surr: 4-Terphenyl-d14	63.7	34.6-151		%REC	1	4/20/2008
Surr: Nitrobenzene-d5	70.9	26.5-122		%REC	1	4/20/2008
Surr: Phenol-d5	73.1	37.6-118		%REC	1	4/20/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
Toluene	1.1	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
Ethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
1,2,4-Trimethylbenzene	1.1	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
Naphthalene	1.2	1.0		mg/Kg	10	4/20/2008 6:23:38 AM
1-Methylnaphthalene	5.4	2.0		mg/Kg	10	4/20/2008 6:23:38 AM
2-Methylnaphthalene	6.6	2.0		mg/Kg	10	4/20/2008 6:23:38 AM
Acetone	ND	7.5		mg/Kg	10	4/20/2008 6:23:38 AM
Bromobenzene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
Bromoform	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
Bromomethane	ND	1.0		mg/Kg	10	4/20/2008 6:23:38 AM
2-Butanone	ND	5.0		mg/Kg	10	4/20/2008 6:23:38 AM
Carbon disulfide	5.6	5.0		mg/Kg	10	4/20/2008 6:23:38 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/20/2008 6:23:38 AM
Chlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
Chloroethane	ND	1.0		mg/Kg	10	4/20/2008 6:23:38 AM
Chloroform	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
Chloromethane	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/20/2008 6:23:38 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-5-HP
Lab Order:	0804138	**Collection Date:**	4/9/2008 8:20:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-29	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
Dibromomethane	ND	1.0		mg/Kg	10	4/20/2008 6:23:38 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/20/2008 6:23:38 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/20/2008 6:23:38 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/20/2008 6:23:38 AM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/20/2008 6:23:38 AM
2-Hexanone	ND	5.0		mg/Kg	10	4/20/2008 6:23:38 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/20/2008 6:23:38 AM
Methylene chloride	ND	1.5		mg/Kg	10	4/20/2008 6:23:38 AM
n-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
Styrene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/20/2008 6:23:38 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/20/2008 6:23:38 AM
Vinyl chloride	ND	0.50		mg/Kg	10	4/20/2008 6:23:38 AM
Xylenes, Total	1.8	1.0		mg/Kg	10	4/20/2008 6:23:38 AM
Surr: 1,2-Dichloroethane-d4	96.2	68.7-122		%REC	10	4/20/2008 6:23:38 AM
Surr: 4-Bromofluorobenzene	97.7	79.3-126		%REC	10	4/20/2008 6:23:38 AM
Surr: Dibromofluoromethane	102	64.4-119		%REC	10	4/20/2008 6:23:38 AM
Surr: Toluene-d8	98.9	86.5-121		%REC	10	4/20/2008 6:23:38 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0804138
Project: Evaporation Pond/Aeration Lagoon
Lab ID: 0804138-30

Client Sample ID: AL2-1-SS
Collection Date: 4/9/2008 10:40:00 AM
Date Received: 4/11/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	50000	5000		mg/Kg	50	4/18/2008 6:04:38 PM
Motor Oil Range Organics (MRO)	ND	25000		mg/Kg	50	4/18/2008 6:04:38 PM
Surr: DNOP	0	61.7-135	S	%REC	50	4/18/2008 6:04:38 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/19/2008 5:23:48 AM
Surr: BFB	103	84-138		%REC	20	4/19/2008 5:23:48 AM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	8.4	1.6		mg/Kg	50	4/28/2008 3:17:26 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	20	2.5		mg/Kg	1	4/23/2008 8:31:41 AM
Barium	260	1.0		mg/Kg	10	4/23/2008 9:46:52 AM
Cadmium	6.6	0.10		mg/Kg	1	4/23/2008 8:31:41 AM
Chromium	30	0.30		mg/Kg	1	4/23/2008 8:31:41 AM
Lead	48	2.5		mg/Kg	10	4/28/2008 11:29:02 AM
Selenium	ND	25		mg/Kg	10	4/23/2008 9:46:52 AM
Silver	ND	0.25		mg/Kg	1	4/28/2008 10:03:47 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/20/2008
Acenaphthylene	ND	30		mg/Kg	1	4/20/2008
Aniline	ND	30		mg/Kg	1	4/20/2008
Anthracene	ND	30		mg/Kg	1	4/20/2008
Azobenzene	ND	30		mg/Kg	1	4/20/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/20/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/20/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/20/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/20/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/20/2008
Benzoic acid	ND	50		mg/Kg	1	4/20/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/20/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/20/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/20/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/20/2008
Carbazole	ND	30		mg/Kg	1	4/20/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/20/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/20/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-1-SS
Lab Order:	0804138	**Collection Date:**	4/9/2008 10:40:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-30	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/20/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/20/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/20/2008
Chrysene	ND	30		mg/Kg	1	4/20/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/20/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/20/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/20/2008
Dibenzofuran	ND	30		mg/Kg	1	4/20/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/20/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/20/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/20/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/20/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/20/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/20/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/20/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/20/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/20/2008
Fluoranthene	ND	38		mg/Kg	1	4/20/2008
Fluorene	ND	30		mg/Kg	1	4/20/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/20/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/20/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/20/2008
Hexachloroethane	ND	30		mg/Kg	1	4/20/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/20/2008
Isophorone	ND	75		mg/Kg	1	4/20/2008
2-Methylnaphthalene	ND	38		mg/Kg	1	4/20/2008
2-Methylphenol	ND	75		mg/Kg	1	4/20/2008
3+4-Methylphenol	150	30		mg/Kg	1	4/20/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/20/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/20/2008
Naphthalene	ND	30		mg/Kg	1	4/20/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/20/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/20/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/20/2008
Nitrobenzene	ND	75		mg/Kg	1	4/20/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/20/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/20/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/20/2008
Phenanthrene	ND	30		mg/Kg	1	4/20/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-1-SS
Lab Order:	0804138	**Collection Date:**	4/9/2008 10:40:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-30	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/20/2008
Pyrene	ND	30		mg/Kg	1	4/20/2008
Pyridine	ND	75		mg/Kg	1	4/20/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/20/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/20/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/20/2008
Surr: 2,4,6-Tribromophenol	58.9	35.5-141		%REC	1	4/20/2008
Surr: 2-Fluorobiphenyl	62.1	30.4-128		%REC	1	4/20/2008
Surr: 2-Fluorophenol	87.4	28.1-129		%REC	1	4/20/2008
Surr: 4-Terphenyl-d14	43.7	34.6-151		%REC	1	4/20/2008
Surr: Nitrobenzene-d5	78.8	26.5-122		%REC	1	4/20/2008
Surr: Phenol-d5	75.3	37.6-118		%REC	1	4/20/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
Toluene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
Ethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
1,2,4-Trimethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
Naphthalene	ND	1.0		mg/Kg	10	4/20/2008 6:59:11 AM
1-Methylnaphthalene	ND	2.0		mg/Kg	10	4/20/2008 6:59:11 AM
2-Methylnaphthalene	ND	2.0		mg/Kg	10	4/20/2008 6:59:11 AM
Acetone	ND	7.5		mg/Kg	10	4/20/2008 6:59:11 AM
Bromobenzene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
Bromoform	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
Bromomethane	ND	1.0		mg/Kg	10	4/20/2008 6:59:11 AM
2-Butanone	ND	5.0		mg/Kg	10	4/20/2008 6:59:11 AM
Carbon disulfide	ND	5.0		mg/Kg	10	4/20/2008 6:59:11 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/20/2008 6:59:11 AM
Chlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
Chloroethane	ND	1.0		mg/Kg	10	4/20/2008 6:59:11 AM
Chloroform	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
Chloromethane	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/20/2008 6:59:11 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-1-SS
Lab Order:	0804138	**Collection Date:**	4/9/2008 10:40:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-30	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Dibromochloromethane	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
Dibromomethane	ND	1.0		mg/Kg	10	4/20/2008 6:59:11 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/20/2008 6:59:11 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/20/2008 6:59:11 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/20/2008 6:59:11 AM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/20/2008 6:59:11 AM
2-Hexanone	ND	5.0		mg/Kg	10	4/20/2008 6:59:11 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/20/2008 6:59:11 AM
Methylene chloride	ND	1.5		mg/Kg	10	4/20/2008 6:59:11 AM
n-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
Styrene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/20/2008 6:59:11 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/20/2008 6:59:11 AM
Vinyl chloride	ND	0.50		mg/Kg	10	4/20/2008 6:59:11 AM
Xylenes, Total	ND	1.0		mg/Kg	10	4/20/2008 6:59:11 AM
Surr: 1,2-Dichloroethane-d4	100	68.7-122		%REC	10	4/20/2008 6:59:11 AM
Surr: 4-Bromofluorobenzene	103	79.3-126		%REC	10	4/20/2008 6:59:11 AM
Surr: Dibromofluoromethane	102	64.4-119		%REC	10	4/20/2008 6:59:11 AM
Surr: Toluene-d8	98.6	86.5-121		%REC	10	4/20/2008 6:59:11 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-2-SS
Lab Order:	0804138	**Collection Date:**	4/8/2008 3:55:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-31	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	260000	5000		mg/Kg	50	4/17/2008 4:19:11 PM
Motor Oil Range Organics (MRO)	31000	25000		mg/Kg	50	4/17/2008 4:19:11 PM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 4:19:11 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/19/2008 5:53:56 AM
Surr: BFB	101	84-138		%REC	20	4/19/2008 5:53:56 AM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	6.8	1.6		mg/Kg	50	4/28/2008 3:20:45 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	13	2.5		mg/Kg	1	4/23/2008 8:34:18 AM
Barium	500	2.0		mg/Kg	20	4/23/2008 9:53:51 AM
Cadmium	0.32	0.10		mg/Kg	1	4/23/2008 8:34:18 AM
Chromium	21	0.30		mg/Kg	1	4/23/2008 8:34:18 AM
Lead	24	0.25		mg/Kg	1	4/28/2008 10:06:19 AM
Selenium	ND	25		mg/Kg	10	4/23/2008 9:49:31 AM
Silver	ND	0.25		mg/Kg	1	4/28/2008 10:06:19 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/20/2008
Acenaphthylene	ND	30		mg/Kg	1	4/20/2008
Aniline	ND	30		mg/Kg	1	4/20/2008
Anthracene	ND	30		mg/Kg	1	4/20/2008
Azobenzene	ND	30		mg/Kg	1	4/20/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/20/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/20/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/20/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/20/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/20/2008
Benzoic acid	ND	60		mg/Kg	1	4/20/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/20/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/20/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/20/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/20/2008
Carbazole	ND	30		mg/Kg	1	4/20/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/20/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/20/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-2-SS
Lab Order:	0804138	**Collection Date:**	4/8/2008 3:55:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-31	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/20/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/20/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/20/2008
Chrysene	ND	30		mg/Kg	1	4/20/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/20/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/20/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/20/2008
Dibenzofuran	ND	30		mg/Kg	1	4/20/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/20/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/20/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/20/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/20/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/20/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/20/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/20/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/20/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/20/2008
Fluoranthene	ND	38		mg/Kg	1	4/20/2008
Fluorene	98	30		mg/Kg	1	4/20/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/20/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/20/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/20/2008
Hexachloroethane	ND	30		mg/Kg	1	4/20/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/20/2008
Isophorone	ND	75		mg/Kg	1	4/20/2008
2-Methylnaphthalene	450	38		mg/Kg	1	4/20/2008
2-Methylphenol	ND	75		mg/Kg	1	4/20/2008
3+4-Methylphenol	ND	30		mg/Kg	1	4/20/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/20/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/20/2008
Naphthalene	38	30		mg/Kg	1	4/20/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/20/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/20/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/20/2008
Nitrobenzene	ND	75		mg/Kg	1	4/20/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/20/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/20/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/20/2008
Phenanthrene	230	30		mg/Kg	1	4/20/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-2-SS
Lab Order:	0804138	**Collection Date:**	4/8/2008 3:55:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-31	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/20/2008
Pyrene	ND	30		mg/Kg	1	4/20/2008
Pyridine	ND	75		mg/Kg	1	4/20/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/20/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/20/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/20/2008
Surr: 2,4,6-Tribromophenol	35.5	35.5-141		%REC	1	4/20/2008
Surr: 2-Fluorobiphenyl	38.5	30.4-128		%REC	1	4/20/2008
Surr: 2-Fluorophenol	86.8	28.1-129		%REC	1	4/20/2008
Surr: 4-Terphenyl-d14	53.9	34.6-151		%REC	1	4/20/2008
Surr: Nitrobenzene-d5	82.6	26.5-122		%REC	1	4/20/2008
Surr: Phenol-d5	69.3	37.6-118		%REC	1	4/20/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
Toluene	2.1	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
Ethylbenzene	0.72	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
1,2,4-Trimethylbenzene	4.5	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
1,3,5-Trimethylbenzene	1.1	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
Naphthalene	5.8	1.0		mg/Kg	10	4/20/2008 9:20:52 AM
1-Methylnaphthalene	26	2.0		mg/Kg	10	4/20/2008 9:20:52 AM
2-Methylnaphthalene	37	2.0		mg/Kg	10	4/20/2008 9:20:52 AM
Acetone	ND	7.5		mg/Kg	10	4/20/2008 9:20:52 AM
Bromobenzene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
Bromoform	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
Bromomethane	ND	1.0		mg/Kg	10	4/20/2008 9:20:52 AM
2-Butanone	ND	5.0		mg/Kg	10	4/20/2008 9:20:52 AM
Carbon disulfide	ND	5.0		mg/Kg	10	4/20/2008 9:20:52 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/20/2008 9:20:52 AM
Chlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
Chloroethane	ND	1.0		mg/Kg	10	4/20/2008 9:20:52 AM
Chloroform	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
Chloromethane	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/20/2008 9:20:52 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level
E	Value above quantitation range
J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit
S	Spike recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
MCL	Maximum Contaminant Level
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-2-SS
Lab Order:	0804138	**Collection Date:**	4/8/2008 3:55:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-31	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
Dibromomethane	ND	1.0		mg/Kg	10	4/20/2008 9:20:52 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/20/2008 9:20:52 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/20/2008 9:20:52 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/20/2008 9:20:52 AM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/20/2008 9:20:52 AM
2-Hexanone	ND	5.0		mg/Kg	10	4/20/2008 9:20:52 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/20/2008 9:20:52 AM
Methylene chloride	ND	1.5		mg/Kg	10	4/20/2008 9:20:52 AM
n-Butylbenzene	1.0	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
Styrene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/20/2008 9:20:52 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/20/2008 9:20:52 AM
Vinyl chloride	ND	0.50		mg/Kg	10	4/20/2008 9:20:52 AM
Xylenes, Total	4.9	1.0		mg/Kg	10	4/20/2008 9:20:52 AM
Surr: 1,2-Dichloroethane-d4	98.2	68.7-122		%REC	10	4/20/2008 9:20:52 AM
Surr: 4-Bromofluorobenzene	79.2	79.3-126	S	%REC	10	4/20/2008 9:20:52 AM
Surr: Dibromofluoromethane	98.1	64.4-119		%REC	10	4/20/2008 9:20:52 AM
Surr: Toluene-d8	97.5	86.5-121		%REC	10	4/20/2008 9:20:52 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-3-SS
Lab Order:	0804138	**Collection Date:**	4/9/2008 10:00:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-32	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	300000	5000		mg/Kg	50	4/17/2008 4:53:20 PM
Motor Oil Range Organics (MRO)	29000	25000		mg/Kg	50	4/17/2008 4:53:20 PM
Surr: DNOP	0	61.7-135	S	%REC	50	4/17/2008 4:53:20 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/19/2008 6:24:07 AM
Surr: BFB	103	84-136		%REC	20	4/19/2008 6:24:07 AM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	8.9	1.6		mg/Kg	50	4/28/2008 3:41:55 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	8.4	2.5		mg/Kg	1	4/23/2008 8:36:55 AM
Barium	350	1.0		mg/Kg	10	4/23/2008 9:56:28 AM
Cadmium	0.42	0.10		mg/Kg	1	4/23/2008 8:36:55 AM
Chromium	14	0.30		mg/Kg	1	4/23/2008 8:36:55 AM
Lead	24	1.2		mg/Kg	5	4/28/2008 11:33:35 AM
Selenium	ND	25		mg/Kg	10	4/23/2008 9:56:28 AM
Silver	ND	0.25		mg/Kg	1	4/28/2008 10:08:51 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/20/2008
Acenaphthylene	ND	30		mg/Kg	1	4/20/2008
Aniline	ND	30		mg/Kg	1	4/20/2008
Anthracene	ND	30		mg/Kg	1	4/20/2008
Azobenzene	ND	30		mg/Kg	1	4/20/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/20/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/20/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/20/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/20/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/20/2008
Benzoic acid	ND	50		mg/Kg	1	4/20/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/20/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/20/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/20/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/20/2008
Carbazole	ND	30		mg/Kg	1	4/20/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/20/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/20/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-3-SS
Lab Order:	0804138	**Collection Date:**	4/9/2008 10:00:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-32	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Chloronaphthalene	ND	38		mg/Kg	1	4/20/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/20/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/20/2008
Chrysene	32	30		mg/Kg	1	4/20/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/20/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/20/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/20/2008
Dibenzofuran	ND	30		mg/Kg	1	4/20/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/20/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/20/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/20/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/20/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/20/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/20/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/20/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/20/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/20/2008
Fluoranthene	ND	38		mg/Kg	1	4/20/2008
Fluorene	43	30		mg/Kg	1	4/20/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/20/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/20/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/20/2008
Hexachloroethane	ND	30		mg/Kg	1	4/20/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/20/2008
Isophorone	ND	75		mg/Kg	1	4/20/2008
2-Methylnaphthalene	300	38		mg/Kg	1	4/20/2008
2-Methylphenol	ND	75		mg/Kg	1	4/20/2008
3+4-Methylphenol	ND	30		mg/Kg	1	4/20/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/20/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/20/2008
Naphthalene	ND	30		mg/Kg	1	4/20/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/20/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/20/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/20/2008
Nitrobenzene	ND	75		mg/Kg	1	4/20/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/20/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/20/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/20/2008
Phenanthrene	250	30		mg/Kg	1	4/20/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-3-SS
Lab Order:	0804138	**Collection Date:**	4/9/2008 10:00:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-32	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/20/2008
Pyrene	47	30		mg/Kg	1	4/20/2008
Pyridine	ND	75		mg/Kg	1	4/20/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/20/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/20/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/20/2008
Surr: 2,4,6-Tribromophenol	25.9	35.5-141	S	%REC	1	4/20/2008
Surr: 2-Fluorobiphenyl	41.3	30.4-128		%REC	1	4/20/2008
Surr: 2-Fluorophenol	84.8	28.1-129		%REC	1	4/20/2008
Surr: 4-Terphenyl-d14	31.7	34.6-151	S	%REC	1	4/20/2008
Surr: Nitrobenzene-d5	71.7	26.5-122		%REC	1	4/20/2008
Surr: Phenol-d5	66.3	37.6-116		%REC	1	4/20/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
Toluene	1.2	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
Ethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
1,2,4-Trimethylbenzene	2.9	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
1,3,5-Trimethylbenzene	0.54	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
Naphthalene	4.6	1.0		mg/Kg	10	4/20/2008 9:56:29 AM
1-Methylnaphthalene	21	2.0		mg/Kg	10	4/20/2008 9:56:29 AM
2-Methylnaphthalene	27	2.0		mg/Kg	10	4/20/2008 9:56:29 AM
Acetone	ND	7.5		mg/Kg	10	4/20/2008 9:56:29 AM
Bromobenzene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
Bromoform	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
Bromomethane	ND	1.0		mg/Kg	10	4/20/2008 9:56:29 AM
2-Butanone	ND	5.0		mg/Kg	10	4/20/2008 9:56:29 AM
Carbon disulfide	ND	5.0		mg/Kg	10	4/20/2008 9:56:29 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/20/2008 9:56:29 AM
Chlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
Chloroethane	ND	1.0		mg/Kg	10	4/20/2008 9:56:29 AM
Chloroform	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
Chloromethane	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/20/2008 9:56:29 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-3-SS
Lab Order:	0804138	**Collection Date:**	4/9/2008 10:00:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-32	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
Dibromomethane	ND	1.0		mg/Kg	10	4/20/2008 9:56:29 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/20/2008 9:56:29 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/20/2008 9:56:29 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/20/2008 9:56:29 AM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/20/2008 9:56:29 AM
2-Hexanone	ND	5.0		mg/Kg	10	4/20/2008 9:56:29 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/20/2008 9:56:29 AM
Methylene chloride	ND	1.5		mg/Kg	10	4/20/2008 9:56:29 AM
n-Butylbenzene	0.66	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
Styrene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/20/2008 9:56:29 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/20/2008 9:56:29 AM
Vinyl chloride	ND	0.50		mg/Kg	10	4/20/2008 9:56:29 AM
Xylenes, Total	2.8	1.0		mg/Kg	10	4/20/2008 9:56:29 AM
Surr: 1,2-Dichloroethane-d4	95.4	68.7-122		%REC	10	4/20/2008 9:56:29 AM
Surr: 4-Bromofluorobenzene	90.3	79.3-126		%REC	10	4/20/2008 9:56:29 AM
Surr: Dibromofluoromethane	95.8	64.4-119		%REC	10	4/20/2008 9:56:29 AM
Surr: Toluene-d8	96.6	86.5-121		%REC	10	4/20/2008 9:56:29 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-4-SS
Lab Order:	0804138	**Collection Date:**	4/9/2008 10:25:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-33	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	250000	5000		mg/Kg	50	4/18/2008 8:19:52 PM
Motor Oil Range Organics (MRO)	35000	25000		mg/Kg	50	4/18/2008 8:19:52 PM
Surr: DNOP	0	61.7-135	S	%REC	50	4/18/2008 8:19:52 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/19/2008 6:54:09 AM
Surr: BFB	103	84-138		%REC	20	4/19/2008 6:54:09 AM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	8.1	1.6		mg/Kg	50	4/28/2008 3:25:49 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	14	2.5		mg/Kg	1	4/23/2008 8:39:36 AM
Barium	190	1.0		mg/Kg	10	4/23/2008 9:59:06 AM
Cadmium	0.42	0.10		mg/Kg	1	4/23/2008 8:39:36 AM
Chromium	16	0.30		mg/Kg	1	4/23/2008 8:39:36 AM
Lead	32	0.25		mg/Kg	1	4/28/2008 10:11:24 AM
Selenium	ND	25		mg/Kg	10	4/23/2008 9:59:06 AM
Silver	ND	0.25		mg/Kg	1	4/28/2008 10:11:24 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/20/2008
Acenaphthylene	ND	30		mg/Kg	1	4/20/2008
Aniline	ND	30		mg/Kg	1	4/20/2008
Anthracene	ND	30		mg/Kg	1	4/20/2008
Azobenzene	ND	30		mg/Kg	1	4/20/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/20/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/20/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/20/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/20/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/20/2008
Benzoic acid	ND	50		mg/Kg	1	4/20/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/20/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/20/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/20/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/20/2008
Carbazole	ND	30		mg/Kg	1	4/20/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/20/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/20/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-4-SS
Lab Order:	0804138	**Collection Date:**	4/9/2008 10:25:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-33	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/20/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/20/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/20/2008
Chrysene	ND	30		mg/Kg	1	4/20/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/20/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/20/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/20/2008
Dibenzofuran	ND	30		mg/Kg	1	4/20/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/20/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/20/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/20/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/20/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/20/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/20/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/20/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/20/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/20/2008
Fluoranthene	ND	38		mg/Kg	1	4/20/2008
Fluorene	44	30		mg/Kg	1	4/20/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/20/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/20/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/20/2008
Hexachloroethane	ND	30		mg/Kg	1	4/20/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/20/2008
Isophorone	ND	75		mg/Kg	1	4/20/2008
2-Methylnaphthalene	190	38		mg/Kg	1	4/20/2008
2-Methylphenol	ND	75		mg/Kg	1	4/20/2008
3+4-Methylphenol	ND	30		mg/Kg	1	4/20/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/20/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/20/2008
Naphthalene	44	30		mg/Kg	1	4/20/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/20/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/20/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/20/2008
Nitrobenzene	ND	75		mg/Kg	1	4/20/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/20/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/20/2008
Pentachlorophenol	ND	60		mg/Kg	1	4/20/2008
Phenanthrene	210	30		mg/Kg	1	4/20/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-4-SS
Lab Order:	0804138	**Collection Date:**	4/9/2008 10:25:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-33	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/20/2008
Pyrene	ND	30		mg/Kg	1	4/20/2008
Pyridine	ND	75		mg/Kg	1	4/20/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/20/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/20/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/20/2008
Surr: 2,4,6-Tribromophenol	35.8	35.5-141		%REC	1	4/20/2008
Surr: 2-Fluorobiphenyl	46.5	30.4-128		%REC	1	4/20/2008
Surr: 2-Fluorophenol	82.3	28.1-129		%REC	1	4/20/2008
Surr: 4-Terphenyl-d14	61.5	34.6-151		%REC	1	4/20/2008
Surr: Nitrobenzene-d5	77.2	26.5-122		%REC	1	4/20/2008
Surr: Phenol-d5	66.5	37.6-118		%REC	1	4/20/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
Toluene	1.6	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
Ethylbenzene	0.56	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
1,2,4-Trimethylbenzene	4.1	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
1,3,5-Trimethylbenzene	0.72	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
Naphthalene	5.4	1.0		mg/Kg	10	4/20/2008 10:32:02 AM
1-Methylnaphthalene	24	2.0		mg/Kg	10	4/20/2008 10:32:02 AM
2-Methylnaphthalene	30	2.0		mg/Kg	10	4/20/2008 10:32:02 AM
Acetone	ND	7.5		mg/Kg	10	4/20/2008 10:32:02 AM
Bromobenzene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
Bromoform	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
Bromomethane	ND	1.0		mg/Kg	10	4/20/2008 10:32:02 AM
2-Butanone	ND	5.0		mg/Kg	10	4/20/2008 10:32:02 AM
Carbon disulfide	ND	5.0		mg/Kg	10	4/20/2008 10:32:02 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/20/2008 10:32:02 AM
Chlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
Chloroethane	ND	1.0		mg/Kg	10	4/20/2008 10:32:02 AM
Chloroform	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
Chloromethane	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/20/2008 10:32:02 AM

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-4-SS
Lab Order:	0804138	**Collection Date:**	4/9/2008 10:25:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-33	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Dibromochloromethane	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
Dibromomethane	ND	1.0		mg/Kg	10	4/20/2008 10:32:02 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/20/2008 10:32:02 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/20/2008 10:32:02 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/20/2008 10:32:02 AM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/20/2008 10:32:02 AM
2-Hexanone	ND	5.0		mg/Kg	10	4/20/2008 10:32:02 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/20/2008 10:32:02 AM
Methylene chloride	ND	1.5		mg/Kg	10	4/20/2008 10:32:02 AM
n-Butylbenzene	1.1	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
Styrene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/20/2008 10:32:02 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/20/2008 10:32:02 AM
Vinyl chloride	ND	0.50		mg/Kg	10	4/20/2008 10:32:02 AM
Xylenes, Total	4.0	1.0		mg/Kg	10	4/20/2008 10:32:02 AM
Surr: 1,2-Dichloroethane-d4	97.1	68.7-122		%REC	10	4/20/2008 10:32:02 AM
Surr: 4-Bromofluorobenzene	81.3	79.3-125		%REC	10	4/20/2008 10:32:02 AM
Surr: Dibromofluoromethane	93.9	64.4-119		%REC	10	4/20/2008 10:32:02 AM
Surr: Toluene-d8	101	86.5-121		%REC	10	4/20/2008 10:32:02 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-5-SS
Lab Order:	0804138	**Collection Date:**	4/9/2008 9:40:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-34	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	370000	5000		mg/Kg	50	4/18/2008 8:53:46 PM
Motor Oil Range Organics (MRO)	ND	25000		mg/Kg	50	4/18/2008 8:53:46 PM
Surr: DNOP	0	61.7-135	S	%REC	50	4/18/2008 8:53:46 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	430	250		mg/Kg	50	4/18/2008 2:38:25 AM
Surr: BFB	118	84-138		%REC	50	4/18/2008 2:38:25 AM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	6.8	1.6		mg/Kg	50	4/28/2008 3:32:20 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	4.6	2.5		mg/Kg	1	4/23/2008 8:42:15 AM
Barium	310	1.0		mg/Kg	10	4/23/2008 10:01:45 AM
Cadmium	0.31	0.10		mg/Kg	1	4/23/2008 8:42:15 AM
Chromium	12	0.30		mg/Kg	1	4/23/2008 8:42:15 AM
Lead	18	0.25		mg/Kg	1	4/28/2008 10:13:57 AM
Selenium	ND	25		mg/Kg	10	4/23/2008 10:01:45 AM
Silver	ND	0.25		mg/Kg	1	4/28/2008 10:13:57 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/20/2008
Acenaphthylene	ND	30		mg/Kg	1	4/20/2008
Aniline	ND	30		mg/Kg	1	4/20/2008
Anthracene	ND	30		mg/Kg	1	4/20/2008
Azobenzene	ND	30		mg/Kg	1	4/20/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/20/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/20/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/20/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/20/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/20/2008
Benzoic acid	ND	50		mg/Kg	1	4/20/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/20/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/20/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/20/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/20/2008
Carbazole	ND	30		mg/Kg	1	4/20/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/20/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/20/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-5-SS
Lab Order:	0804138	**Collection Date:**	4/9/2008 9:40:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-34	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/20/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/20/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/20/2008
Chrysene	ND	30		mg/Kg	1	4/20/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/20/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/20/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/20/2008
Dibenzofuran	ND	30		mg/Kg	1	4/20/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/20/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/20/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/20/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/20/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/20/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/20/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/20/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/20/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/20/2008
Fluoranthene	ND	38		mg/Kg	1	4/20/2008
Fluorene	70	30		mg/Kg	1	4/20/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/20/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/20/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/20/2008
Hexachloroethane	ND	30		mg/Kg	1	4/20/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/20/2008
Isophorone	ND	75		mg/Kg	1	4/20/2008
2-Methylnaphthalene	550	38		mg/Kg	1	4/20/2008
2-Methylphenol	ND	75		mg/Kg	1	4/20/2008
3+4-Methylphenol	ND	30		mg/Kg	1	4/20/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/20/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/20/2008
Naphthalene	85	30		mg/Kg	1	4/20/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/20/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/20/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/20/2008
Nitrobenzene	ND	75		mg/Kg	1	4/20/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/20/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/20/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/20/2008
Phenanthrene	250	30		mg/Kg	1	4/20/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-5-SS
Lab Order:	0804138	**Collection Date:**	4/9/2008 9:40:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-34	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/20/2008
Pyrene	36	30		mg/Kg	1	4/20/2008
Pyridine	ND	75		mg/Kg	1	4/20/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/20/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/20/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/20/2008
Surr: 2,4,6-Tribromophenol	12.3	35.5-141	S	%REC	1	4/20/2008
Surr: 2-Fluorobiphenyl	36.4	30.4-128		%REC	1	4/20/2008
Surr: 2-Fluorophenol	81.9	28.1-129		%REC	1	4/20/2008
Surr: 4-Terphenyl-d14	84.8	34.6-151		%REC	1	4/20/2008
Surr: Nitrobenzene-d5	84.2	26.5-122		%REC	1	4/20/2008
Surr: Phenol-d5	59.7	37.6-118		%REC	1	4/20/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	2.3	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
Toluene	18	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
Ethylbenzene	6.4	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
1,2,4-Trimethylbenzene	17	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
1,3,5-Trimethylbenzene	5.6	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
Naphthalene	15	1.0		mg/Kg	10	4/20/2008 11:07:25 AM
1-Methylnaphthalene	43	2.0		mg/Kg	10	4/20/2008 11:07:25 AM
2-Methylnaphthalene	35	4.0		mg/Kg	20	4/21/2008 1:48:32 PM
Acetone	ND	7.5		mg/Kg	10	4/20/2008 11:07:25 AM
Bromobenzene	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
Bromoform	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
Bromomethane	ND	1.0		mg/Kg	10	4/20/2008 11:07:25 AM
2-Butanone	ND	5.0		mg/Kg	10	4/20/2008 11:07:25 AM
Carbon disulfide	ND	5.0		mg/Kg	10	4/20/2008 11:07:25 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/20/2008 11:07:25 AM
Chlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
Chloroethane	ND	1.0		mg/Kg	10	4/20/2008 11:07:25 AM
Chloroform	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
Chloromethane	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/20/2008 11:07:25 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	AL2-5-SS
Lab Order:	0804138	**Collection Date:**	4/9/2008 9:40:00 AM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-34	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
Dibromomethane	ND	1.0		mg/Kg	10	4/20/2008 11:07:25 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/20/2008 11:07:25 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/20/2008 11:07:25 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/20/2008 11:07:25 AM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/20/2008 11:07:25 AM
2-Hexanone	ND	5.0		mg/Kg	10	4/20/2008 11:07:25 AM
Isopropylbenzene	1.7	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
4-Isopropyltoluene	1.0	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/20/2008 11:07:25 AM
Methylene chloride	ND	1.5		mg/Kg	10	4/20/2008 11:07:25 AM
n-Butylbenzene	3.4	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
n-Propylbenzene	3.0	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
sec-Butylbenzene	2.0	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
Styrene	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/20/2008 11:07:25 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/20/2008 11:07:25 AM
Vinyl chloride	ND	0.50		mg/Kg	10	4/20/2008 11:07:25 AM
Xylenes, Total	39	1.0		mg/Kg	10	4/20/2008 11:07:25 AM
Surr: 1,2-Dichloroethane-d4	95.2	68.7-122		%REC	10	4/20/2008 11:07:25 AM
Surr: 4-Bromofluorobenzene	83.7	79.3-126		%REC	10	4/20/2008 11:07:25 AM
Surr: Dibromofluoromethane	98.5	64.4-119		%REC	10	4/20/2008 11:07:25 AM
Surr: Toluene-d8	94.7	86.5-121		%REC	10	4/20/2008 11:07:25 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-1
Lab Order:	0804138	**Collection Date:**	4/9/2008 6:25:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-35	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	200000	5000		mg/Kg	50	4/18/2008 10:34:50 PM
Motor Oil Range Organics (MRO)	ND	25000		mg/Kg	50	4/18/2008 10:34:50 PM
Surr: DNOP	0	61.7-135	S	%REC	50	4/18/2008 10:34:50 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/19/2008 7:24:11 AM
Surr: BFB	98.1	84-138		%REC	20	4/19/2008 7:24:11 AM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	6.8	1.6		mg/Kg	50	4/28/2008 3:35:31 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	5.4	2.5		mg/Kg	1	4/23/2008 8:44:55 AM
Barium	400	1.0		mg/Kg	10	4/23/2008 10:04:24 AM
Cadmium	0.45	0.10		mg/Kg	1	4/23/2008 8:44:55 AM
Chromium	9.7	0.30		mg/Kg	1	4/23/2008 8:44:55 AM
Lead	16	0.25		mg/Kg	1	4/28/2008 10:16:29 AM
Selenium	ND	25		mg/Kg	10	4/23/2008 10:04:24 AM
Silver	ND	0.25		mg/Kg	1	4/28/2008 10:16:29 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/20/2008
Acenaphthylene	ND	30		mg/Kg	1	4/20/2008
Aniline	ND	30		mg/Kg	1	4/20/2008
Anthracene	ND	30		mg/Kg	1	4/20/2008
Azobenzene	ND	30		mg/Kg	1	4/20/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/20/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/20/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/20/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/20/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/20/2008
Benzoic acid	ND	50		mg/Kg	1	4/20/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/20/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/20/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/20/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/20/2008
Carbazole	ND	30		mg/Kg	1	4/20/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/20/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/20/2008

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-1
Lab Order:	0804138	**Collection Date:**	4/9/2008 6:25:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-35	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/20/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/20/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/20/2008
Chrysene	45	30		mg/Kg	1	4/20/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/20/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/20/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/20/2008
Dibenzofuran	ND	30		mg/Kg	1	4/20/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/20/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/20/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/20/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/20/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/20/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/20/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/20/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/20/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/20/2008
Fluoranthene	ND	38		mg/Kg	1	4/20/2008
Fluorene	53	30		mg/Kg	1	4/20/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/20/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/20/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/20/2008
Hexachloroethane	ND	30		mg/Kg	1	4/20/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/20/2008
Isophorone	ND	75		mg/Kg	1	4/20/2008
2-Methylnaphthalene	370	38		mg/Kg	1	4/20/2008
2-Methylphenol	ND	75		mg/Kg	1	4/20/2008
3+4-Methylphenol	53	30		mg/Kg	1	4/20/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/20/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/20/2008
Naphthalene	31	30		mg/Kg	1	4/20/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/20/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/20/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/20/2008
Nitrobenzene	ND	75		mg/Kg	1	4/20/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/20/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/20/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/20/2008
Phenanthrene	330	30		mg/Kg	1	4/20/2008

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-1
Lab Order:	0804138	**Collection Date:**	4/9/2008 6:25:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-35	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Phenol	ND	30		mg/Kg	1	4/20/2008
Pyrene	47	30		mg/Kg	1	4/20/2008
Pyridine	ND	75		mg/Kg	1	4/20/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/20/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/20/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/20/2008
Surr: 2,4,6-Tribromophenol	28.9	35.5-141	S	%REC	1	4/20/2008
Surr: 2-Fluorobiphenyl	66.1	30.4-128		%REC	1	4/20/2008
Surr: 2-Fluorophenol	104	28.1-129		%REC	1	4/20/2008
Surr: 4-Terphenyl-d14	127	34.6-151		%REC	1	4/20/2008
Surr: Nitrobenzene-d5	86.0	26.5-122		%REC	1	4/20/2008
Surr: Phenol-d5	75.6	37.6-118		%REC	1	4/20/2008
EPA METHOD 8260B: VOLATILES						Analyst: **BDH**
Benzene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
Toluene	0.51	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
Ethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
1,2,4-Trimethylbenzene	1.5	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
Naphthalene	2.6	1.0		mg/Kg	10	4/20/2008 11:43:12 AM
1-Methylnaphthalene	12	2.0		mg/Kg	10	4/20/2008 11:43:12 AM
2-Methylnaphthalene	16	2.0		mg/Kg	10	4/20/2008 11:43:12 AM
Acetone	ND	7.5		mg/Kg	10	4/20/2008 11:43:12 AM
Bromobenzene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
Bromoform	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
Bromomethane	ND	1.0		mg/Kg	10	4/20/2008 11:43:12 AM
2-Butanone	ND	5.0		mg/Kg	10	4/20/2008 11:43:12 AM
Carbon disulfide	ND	5.0		mg/Kg	10	4/20/2008 11:43:12 AM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/20/2008 11:43:12 AM
Chlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
Chloroethane	ND	1.0		mg/Kg	10	4/20/2008 11:43:12 AM
Chloroform	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
Chloromethane	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/20/2008 11:43:12 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-1
Lab Order:	0804138	**Collection Date:**	4/9/2008 6:25:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-35	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
Dibromomethane	ND	1.0		mg/Kg	10	4/20/2008 11:43:12 AM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/20/2008 11:43:12 AM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/20/2008 11:43:12 AM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/20/2008 11:43:12 AM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/20/2008 11:43:12 AM
2-Hexanone	ND	5.0		mg/Kg	10	4/20/2008 11:43:12 AM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/20/2008 11:43:12 AM
Methylene chloride	ND	1.5		mg/Kg	10	4/20/2008 11:43:12 AM
n-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
Styrene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/20/2008 11:43:12 AM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/20/2008 11:43:12 AM
Vinyl chloride	ND	0.50		mg/Kg	10	4/20/2008 11:43:12 AM
Xylenes, Total	ND	1.0		mg/Kg	10	4/20/2008 11:43:12 AM
Surr: 1,2-Dichloroethane-d4	91.7	68.7-122		%REC	10	4/20/2008 11:43:12 AM
Surr: 4-Bromofluorobenzene	104	79.3-126		%REC	10	4/20/2008 11:43:12 AM
Surr: Dibromofluoromethane	96.5	64.4-119		%REC	10	4/20/2008 11:43:12 AM
Surr: Toluene-d8	96.7	86.5-121		%REC	10	4/20/2008 11:43:12 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-2
Lab Order:	0804138	**Collection Date:**	4/9/2008 6:45:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-36	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	150000	5000		mg/Kg	50	4/18/2008 11:08:22 PM
Motor Oil Range Organics (MRO)	ND	25000		mg/Kg	50	4/18/2008 11:08:22 PM
Surr: DNOP	0	61.7-135	S	%REC	50	4/18/2008 11:08:22 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	4/19/2008 7:54:10 AM
Surr: BFB	108	84-138		%REC	20	4/19/2008 7:54:10 AM
EPA METHOD 7471: MERCURY						Analyst: **SNV**
Mercury	4.4	1.6		mg/Kg	50	4/28/2008 3:38:43 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **NMO**
Arsenic	17	2.5		mg/Kg	1	4/23/2008 8:47:38 AM
Barium	190	1.0		mg/Kg	10	4/23/2008 10:08:46 AM
Cadmium	0.58	0.10		mg/Kg	1	4/23/2008 8:47:38 AM
Chromium	24	0.30		mg/Kg	1	4/23/2008 8:47:38 AM
Lead	18	0.25		mg/Kg	1	4/28/2008 10:19:02 AM
Selenium	ND	25		mg/Kg	10	4/23/2008 10:08:46 AM
Silver	ND	0.25		mg/Kg	1	4/28/2008 10:19:02 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	30		mg/Kg	1	4/20/2008
Acenaphthylene	ND	30		mg/Kg	1	4/20/2008
Aniline	ND	30		mg/Kg	1	4/20/2008
Anthracene	ND	30		mg/Kg	1	4/20/2008
Azobenzene	ND	30		mg/Kg	1	4/20/2008
Benz(a)anthracene	ND	30		mg/Kg	1	4/20/2008
Benzo(a)pyrene	ND	30		mg/Kg	1	4/20/2008
Benzo(b)fluoranthene	ND	30		mg/Kg	1	4/20/2008
Benzo(g,h,i)perylene	ND	75		mg/Kg	1	4/20/2008
Benzo(k)fluoranthene	ND	30		mg/Kg	1	4/20/2008
Benzoic acid	ND	60		mg/Kg	1	4/20/2008
Benzyl alcohol	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroethoxy)methane	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroethyl)ether	ND	30		mg/Kg	1	4/20/2008
Bis(2-chloroisopropyl)ether	ND	30		mg/Kg	1	4/20/2008
Bis(2-ethylhexyl)phthalate	ND	75		mg/Kg	1	4/20/2008
4-Bromophenyl phenyl ether	ND	30		mg/Kg	1	4/20/2008
Butyl benzyl phthalate	ND	30		mg/Kg	1	4/20/2008
Carbazole	ND	30		mg/Kg	1	4/20/2008
4-Chloro-3-methylphenol	ND	75		mg/Kg	1	4/20/2008
4-Chloroaniline	ND	75		mg/Kg	1	4/20/2008

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-2
Lab Order:	0804138	**Collection Date:**	4/9/2008 6:45:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-36	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
2-Chloronaphthalene	ND	38		mg/Kg	1	4/20/2008
2-Chlorophenol	ND	30		mg/Kg	1	4/20/2008
4-Chlorophenyl phenyl ether	ND	30		mg/Kg	1	4/20/2008
Chrysene	ND	30		mg/Kg	1	4/20/2008
Di-n-butyl phthalate	ND	75		mg/Kg	1	4/20/2008
Di-n-octyl phthalate	ND	30		mg/Kg	1	4/20/2008
Dibenz(a,h)anthracene	ND	30		mg/Kg	1	4/20/2008
Dibenzofuran	ND	30		mg/Kg	1	4/20/2008
1,2-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
1,3-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
1,4-Dichlorobenzene	ND	30		mg/Kg	1	4/20/2008
3,3'-Dichlorobenzidine	ND	38		mg/Kg	1	4/20/2008
Diethyl phthalate	ND	30		mg/Kg	1	4/20/2008
Dimethyl phthalate	ND	30		mg/Kg	1	4/20/2008
2,4-Dichlorophenol	ND	30		mg/Kg	1	4/20/2008
2,4-Dimethylphenol	ND	45		mg/Kg	1	4/20/2008
4,6-Dinitro-2-methylphenol	ND	75		mg/Kg	1	4/20/2008
2,4-Dinitrophenol	ND	75		mg/Kg	1	4/20/2008
2,4-Dinitrotoluene	ND	75		mg/Kg	1	4/20/2008
2,6-Dinitrotoluene	ND	75		mg/Kg	1	4/20/2008
Fluoranthene	ND	38		mg/Kg	1	4/20/2008
Fluorene	ND	30		mg/Kg	1	4/20/2008
Hexachlorobenzene	ND	30		mg/Kg	1	4/20/2008
Hexachlorobutadiene	ND	30		mg/Kg	1	4/20/2008
Hexachlorocyclopentadiene	ND	30		mg/Kg	1	4/20/2008
Hexachloroethane	ND	30		mg/Kg	1	4/20/2008
Indeno(1,2,3-cd)pyrene	ND	38		mg/Kg	1	4/20/2008
Isophorone	ND	75		mg/Kg	1	4/20/2008
2-Methylnaphthalene	58	38		mg/Kg	1	4/20/2008
2-Methylphenol	ND	75		mg/Kg	1	4/20/2008
3+4-Methylphenol	34	30		mg/Kg	1	4/20/2008
N-Nitrosodi-n-propylamine	ND	30		mg/Kg	1	4/20/2008
N-Nitrosodiphenylamine	ND	30		mg/Kg	1	4/20/2008
Naphthalene	ND	30		mg/Kg	1	4/20/2008
2-Nitroaniline	ND	30		mg/Kg	1	4/20/2008
3-Nitroaniline	ND	30		mg/Kg	1	4/20/2008
4-Nitroaniline	ND	38		mg/Kg	1	4/20/2008
Nitrobenzene	ND	75		mg/Kg	1	4/20/2008
2-Nitrophenol	ND	30		mg/Kg	1	4/20/2008
4-Nitrophenol	ND	30		mg/Kg	1	4/20/2008
Pentachlorophenol	ND	50		mg/Kg	1	4/20/2008
Phenanthrene	71	30		mg/Kg	1	4/20/2008

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- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-2
Lab Order:	0804138	**Collection Date:**	4/9/2008 6:45:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-36	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Phenol	ND	30		mg/Kg	1	4/20/2008
Pyrene	ND	30		mg/Kg	1	4/20/2008
Pyridine	ND	75		mg/Kg	1	4/20/2008
1,2,4-Trichlorobenzene	ND	30		mg/Kg	1	4/20/2008
2,4,5-Trichlorophenol	ND	30		mg/Kg	1	4/20/2008
2,4,6-Trichlorophenol	ND	30		mg/Kg	1	4/20/2008
Surr: 2,4,6-Tribromophenol	78.3	35.5-141		%REC	1	4/20/2008
Surr: 2-Fluorobiphenyl	80.4	30.4-128		%REC	1	4/20/2008
Surr: 2-Fluorophenol	99.3	28.1-129		%REC	1	4/20/2008
Surr: 4-Terphenyl-d14	160	34.6-151	S	%REC	1	4/20/2008
Surr: Nitrobenzene-d5	74.7	26.5-122		%REC	1	4/20/2008
Surr: Phenol-d5	78.1	37.6-118		%REC	1	4/20/2008
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Benzene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
Toluene	0.51	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
Ethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
1,2,4-Trimethylbenzene	1.4	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
Naphthalene	1.4	1.0		mg/Kg	10	4/20/2008 12:18:36 PM
1-Methylnaphthalene	5.8	2.0		mg/Kg	10	4/20/2008 12:18:36 PM
2-Methylnaphthalene	7.7	2.0		mg/Kg	10	4/20/2008 12:18:36 PM
Acetone	ND	7.5		mg/Kg	10	4/20/2008 12:18:36 PM
Bromobenzene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
Bromoform	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
Bromomethane	ND	1.0		mg/Kg	10	4/20/2008 12:18:36 PM
2-Butanone	ND	5.0		mg/Kg	10	4/20/2008 12:18:36 PM
Carbon disulfide	ND	5.0		mg/Kg	10	4/20/2008 12:18:36 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	4/20/2008 12:18:36 PM
Chlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
Chloroethane	ND	1.0		mg/Kg	10	4/20/2008 12:18:36 PM
Chloroform	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
Chloromethane	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	4/20/2008 12:18:36 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- RL Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: *29-Apr-08*

CLIENT:	Western Refining Southwest, Gallup	**Client Sample ID:**	EP1-2
Lab Order:	0804138	**Collection Date:**	4/9/2008 6:45:00 PM
Project:	Evaporation Pond/Aeration Lagoon	**Date Received:**	4/11/2008
Lab ID:	0804138-36	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: BDH
Dibromochloromethane	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
Dibromomethane	ND	1.0		mg/Kg	10	4/20/2008 12:18:36 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	4/20/2008 12:18:36 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	4/20/2008 12:18:36 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	4/20/2008 12:18:36 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	4/20/2008 12:18:36 PM
2-Hexanone	ND	5.0		mg/Kg	10	4/20/2008 12:18:36 PM
Isopropylbenzene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	4/20/2008 12:18:36 PM
Methylene chloride	ND	1.5		mg/Kg	10	4/20/2008 12:18:36 PM
n-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
n-Propylbenzene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
sec-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
Styrene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	4/20/2008 12:18:36 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	4/20/2008 12:18:36 PM
Vinyl chloride	ND	0.50		mg/Kg	10	4/20/2008 12:18:36 PM
Xylenes, Total	1.0	1.0		mg/Kg	10	4/20/2008 12:18:36 PM
Surr: 1,2-Dichloroethane-d4	95.3	68.7-122		%REC	10	4/20/2008 12:18:36 PM
Surr: 4-Bromofluorobenzene	83.1	79.3-126		%REC	10	4/20/2008 12:18:36 PM
Surr: Dibromofluoromethane	99.0	64.4-119		%REC	10	4/20/2008 12:18:36 PM
Surr: Toluene-d8	97.3	86.5-121		%REC	10	4/20/2008 12:18:36 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon **Work Order:** 0804138

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics									
Sample ID: MB-15653		*MBLK*			Batch ID:	**15653**	Analysis Date:		4/16/2008 6:17:27 PM
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: MB-15654		*MBLK*			Batch ID:	**15654**	Analysis Date:		4/16/2008 8:00:27 PM
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-15653		*LCS*			Batch ID:	**15653**	Analysis Date:		4/16/2008 6:51:47 PM
Diesel Range Organics (DRO)	43.17	mg/Kg	10	86.3	64.6	116			
Sample ID: LCS-15654		*LCS*			Batch ID:	**15654**	Analysis Date:		4/16/2008 8:34:51 PM
Diesel Range Organics (DRO)	42.92	mg/Kg	10	85.8	64.6	116			
Sample ID: LCSD-15653		*LCSD*			Batch ID:	**15653**	Analysis Date:		4/16/2008 7:26:07 PM
Diesel Range Organics (DRO)	42.84	mg/Kg	10	85.7	64.6	116	0.781	17.4	
Sample ID: LCSD-15654		*LCSD*			Batch ID:	**15654**	Analysis Date:		4/16/2008 9:09:11 PM
Diesel Range Organics (DRO)	45.88	mg/Kg	10	91.8	64.6	116	6.66	17.4	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: MB-15641		*MBLK*			Batch ID:	**15641**	Analysis Date:		4/17/2008 12:40:47 AM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: MB-15642		*MBLK*			Batch ID:	**15642**	Analysis Date:		4/17/2008 11:07:42 PM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-15641		*LCS*			Batch ID:	**15641**	Analysis Date:		4/16/2008 11:40:25 PM
Gasoline Range Organics (GRO)	24.68	mg/Kg	5.0	98.7	69.5	120			
Sample ID: LCS-15642		*LCS*			Batch ID:	**15642**	Analysis Date:		4/17/2008 10:07:36 PM
Gasoline Range Organics (GRO)	24.50	mg/Kg	5.0	98.0	69.5	120			
Sample ID: LCSD-15641		*LCSD*			Batch ID:	**15641**	Analysis Date:		4/17/2008 12:10:42 AM
Gasoline Range Organics (GRO)	24.48	mg/Kg	5.0	97.9	69.5	120	0.814	11.6	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon **Work Order:** 0804138

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: mb-15669		*MBLK*			**Batch ID: 15669**		**Analysis Date:**		**4/17/2008**
Acenaphthene	ND	mg/Kg	0.20						
Acenaphthylene	ND	mg/Kg	0.20						
Aniline	ND	mg/Kg	0.20						
Anthracene	ND	mg/Kg	0.20						
Azobenzene	ND	mg/Kg	0.20						
Benz(a)anthracene	ND	mg/Kg	0.20						
Benzo(a)pyrene	ND	mg/Kg	0.20						
Benzo(b)fluoranthene	ND	mg/Kg	0.20						
Benzo(g,h,i)perylene	ND	mg/Kg	0.50						
Benzo(k)fluoranthene	ND	mg/Kg	0.20						
Benzoic acid	ND	mg/Kg	0.33						
Benzyl alcohol	ND	mg/Kg	0.20						
Bis(2-chloroethoxy)methane	ND	mg/Kg	0.20						
Bis(2-chloroethyl)ether	ND	mg/Kg	0.20						
Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.20						
Bis(2-ethylhexyl)phthalate	ND	mg/Kg	0.50						
4-Bromophenyl phenyl ether	ND	mg/Kg	0.20						
utyl benzyl phthalate	ND	mg/Kg	0.20						
Carbazole	ND	mg/Kg	0.20						
4-Chloro-3-methylphenol	ND	mg/Kg	0.50						
4-Chloroaniline	ND	mg/Kg	0.50						
2-Chloronaphthalene	ND	mg/Kg	0.25						
2-Chlorophenol	ND	mg/Kg	0.20						
4-Chlorophenyl phenyl ether	ND	mg/Kg	0.20						
Chrysene	ND	mg/Kg	0.20						
Di-n-butyl phthalate	ND	mg/Kg	0.50						
Di-n-octyl phthalate	ND	mg/Kg	0.20						
Dibenz(a,h)anthracene	ND	mg/Kg	0.20						
Dibenzofuran	ND	mg/Kg	0.20						
1,2-Dichlorobenzene	ND	mg/Kg	0.20						
1,3-Dichlorobenzene	ND	mg/Kg	0.20						
1,4-Dichlorobenzene	ND	mg/Kg	0.20						
3,3'-Dichlorobenzidine	ND	mg/Kg	0.25						
Diethyl phthalate	ND	mg/Kg	0.20						
Dimethyl phthalate	ND	mg/Kg	0.20						
2,4-Dichlorophenol	ND	mg/Kg	0.20						
2,4-Dimethylphenol	ND	mg/Kg	0.30						
4,6-Dinitro-2-methylphenol	ND	mg/Kg	0.50						
2,4-Dinitrophenol	ND	mg/Kg	0.50						
2,4-Dinitrotoluene	ND	mg/Kg	0.50						
2,6-Dinitrotoluene	ND	mg/Kg	0.50						
Fluoranthene	ND	mg/Kg	0.25						
Fluorene	ND	mg/Kg	0.20						
exachlorobenzene	ND	mg/Kg	0.20						

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon **Work Order:** 0804138

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: mb-15669		*MBLK*			Batch ID:	15669	Analysis Date:		4/17/2008
Hexachlorobutadiene	ND	mg/Kg	0.20						
Hexachlorocyclopentadiene	ND	mg/Kg	0.20						
Hexachloroethane	ND	mg/Kg	0.20						
Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.25						
Isophorone	ND	mg/Kg	0.50						
2-Methylnaphthalene	ND	mg/Kg	0.25						
2-Methylphenol	ND	mg/Kg	0.50						
3+4-Methylphenol	ND	mg/Kg	0.20						
N-Nitrosodi-n-propylamine	ND	mg/Kg	0.20						
N-Nitrosodiphenylamine	ND	mg/Kg	0.20						
Naphthalene	ND	mg/Kg	0.20						
2-Nitroaniline	ND	mg/Kg	0.20						
3-Nitroaniline	ND	mg/Kg	0.20						
4-Nitroaniline	ND	mg/Kg	0.25						
Nitrobenzene	ND	mg/Kg	0.50						
2-Nitrophenol	ND	mg/Kg	0.20						
4-Nitrophenol	ND	mg/Kg	0.20						
Pentachlorophenol	ND	mg/Kg	0.33						
Phenanthrene	ND	mg/Kg	0.20						
Phenol	ND	mg/Kg	0.20						
Pyrene	ND	mg/Kg	0.20						
Pyridine	ND	mg/Kg	0.50						
1,2,4-Trichlorobenzene	ND	mg/Kg	0.20						
2,4,5-Trichlorophenol	ND	mg/Kg	0.20						
2,4,6-Trichlorophenol	ND	mg/Kg	0.20						
Sample ID: mb-15682		*MBLK*			Batch ID:	15682	Analysis Date:		4/18/2008
Acenaphthene	ND	mg/Kg	0.20						
Acenaphthylene	ND	mg/Kg	0.20						
Aniline	ND	mg/Kg	0.20						
Anthracene	ND	mg/Kg	0.20						
Azobenzene	ND	mg/Kg	0.20						
Benz(a)anthracene	ND	mg/Kg	0.20						
Benzo(a)pyrene	ND	mg/Kg	0.20						
Benzo(b)fluoranthene	ND	mg/Kg	0.20						
Benzo(g,h,i)perylene	ND	mg/Kg	0.50						
Benzo(k)fluoranthene	ND	mg/Kg	0.20						
Benzoic acid	ND	mg/Kg	0.33						
Benzyl alcohol	ND	mg/Kg	0.20						
Bis(2-chloroethoxy)methane	ND	mg/Kg	0.20						
Bis(2-chloroethyl)ether	ND	mg/Kg	0.20						
Bis(2-chloroisopropyl)ether	ND	mg/Kg	0.20						
Bis(2-ethylhexyl)phthalate	ND	mg/Kg	0.50						
4-Bromophenyl phenyl ether	ND	mg/Kg	0.20						
Butyl benzyl phthalate	ND	mg/Kg	0.20						

Qualifiers:

- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon **Work Order:** 0804138

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: mb-15682		*MBLK*			Batch ID: **15682**		Analysis Date:		4/18/2008
Carbazole	ND	mg/Kg	0.20						
4-Chloro-3-methylphenol	ND	mg/Kg	0.50						
4-Chloroaniline	ND	mg/Kg	0.50						
2-Chloronaphthalene	ND	mg/Kg	0.25						
2-Chlorophenol	ND	mg/Kg	0.20						
4-Chlorophenyl phenyl ether	ND	mg/Kg	0.20						
Chrysene	ND	mg/Kg	0.20						
Di-n-butyl phthalate	ND	mg/Kg	0.50						
Di-n-octyl phthalate	ND	mg/Kg	0.20						
Dibenz(a,h)anthracene	ND	mg/Kg	0.20						
Dibenzofuran	ND	mg/Kg	0.20						
1,2-Dichlorobenzene	ND	mg/Kg	0.20						
1,3-Dichlorobenzene	ND	mg/Kg	0.20						
1,4-Dichlorobenzene	ND	mg/Kg	0.20						
3,3'-Dichlorobenzidine	ND	mg/Kg	0.25						
Diethyl phthalate	ND	mg/Kg	0.20						
Dimethyl phthalate	ND	mg/Kg	0.20						
1-Dichlorophenol	ND	mg/Kg	0.20						
2,4-Dimethylphenol	ND	mg/Kg	0.30						
4,6-Dinitro-2-methylphenol	ND	mg/Kg	0.50						
2,4-Dinitrophenol	ND	mg/Kg	0.50						
2,4-Dinitrotoluene	ND	mg/Kg	0.50						
2,6-Dinitrotoluene	ND	mg/Kg	0.50						
Fluoranthene	ND	mg/Kg	0.25						
Fluorene	ND	mg/Kg	0.20						
Hexachlorobenzene	ND	mg/Kg	0.20						
Hexachlorobutadiene	ND	mg/Kg	0.20						
Hexachlorocyclopentadiene	ND	mg/Kg	0.20						
Hexachloroethane	ND	mg/Kg	0.20						
Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.25						
Isophorone	ND	mg/Kg	0.50						
2-Methylnaphthalene	ND	mg/Kg	0.25						
2-Methylphenol	ND	mg/Kg	0.50						
3+4-Methylphenol	ND	mg/Kg	0.20						
N-Nitrosodi-n-propylamine	ND	mg/Kg	0.20						
N-Nitrosodiphenylamine	ND	mg/Kg	0.20						
Naphthalene	ND	mg/Kg	0.20						
2-Nitroaniline	ND	mg/Kg	0.20						
3-Nitroaniline	ND	mg/Kg	0.20						
4-Nitroaniline	ND	mg/Kg	0.25						
Nitrobenzene	ND	mg/Kg	0.50						
2-Nitrophenol	ND	mg/Kg	0.20						
4-Nitrophenol	ND	mg/Kg	0.20						
Pentachlorophenol	ND	mg/Kg	0.33						

Qualifiers:

- B Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon **Work Order:** 0804138

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: mb-15682		*MBLK*			Batch ID:	**15682**	Analysis Date:		4/18/2008
Phenanthrene	ND	mg/Kg	0.20						
Phenol	ND	mg/Kg	0.20						
Pyrene	ND	mg/Kg	0.20						
Pyridine	ND	mg/Kg	0.50						
1,2,4-Trichlorobenzene	ND	mg/Kg	0.20						
2,4,5-Trichlorophenol	ND	mg/Kg	0.20						
2,4,6-Trichlorophenol	ND	mg/Kg	0.20						
Sample ID: lcs-15669		*LCS*			Batch ID:	**15669**	Analysis Date:		4/17/2008
Acenaphthene	0.9563	mg/Kg	0.20	57.3	46.6	109			
4-Chloro-3-methylphenol	2.026	mg/Kg	0.50	60.9	43.3	116			
2-Chlorophenol	1.973	mg/Kg	0.20	59.2	42.5	108			
1,4-Dichlorobenzene	1.052	mg/Kg	0.20	63.0	32.4	115			
2,4-Dinitrotoluene	0.9647	mg/Kg	0.50	57.8	45.1	100			
N-Nitrosodi-n-propylamine	1.003	mg/Kg	0.20	60.1	43	113			
4-Nitrophenol	2.093	mg/Kg	0.20	62.9	37.3	123			
Pentachlorophenol	2.104	mg/Kg	0.33	63.2	31.9	116			
Phenol	2.015	mg/Kg	0.20	60.5	41.6	111			
Pyrene	0.8913	mg/Kg	0.20	53.4	37.3	105			
1,2,4-Trichlorobenzene	1.086	mg/Kg	0.20	65.0	30.4	114			
Sample ID: lcs-15682		*LCS*			Batch ID:	**15682**	Analysis Date:		4/18/2008
Acenaphthene	0.9750	mg/Kg	0.20	58.4	46.6	109			
4-Chloro-3-methylphenol	2.085	mg/Kg	0.50	62.6	43.3	116			
2-Chlorophenol	2.026	mg/Kg	0.20	60.8	42.5	108			
1,4-Dichlorobenzene	1.038	mg/Kg	0.20	62.2	32.4	115			
2,4-Dinitrotoluene	0.9477	mg/Kg	0.50	56.7	45.1	100			
N-Nitrosodi-n-propylamine	0.9840	mg/Kg	0.20	58.9	43	113			
4-Nitrophenol	1.697	mg/Kg	0.20	51.0	37.3	123			
Pentachlorophenol	1.895	mg/Kg	0.33	56.9	31.9	116			
Phenol	1.922	mg/Kg	0.20	57.7	41.6	111			
Pyrene	0.9677	mg/Kg	0.20	57.9	37.3	105			
1,2,4-Trichlorobenzene	1.124	mg/Kg	0.20	67.3	30.4	114			
Method: EPA Method 7471: Mercury									
Sample ID: MB-15688		*MBLK*			Batch ID:	**15688**	Analysis Date:		4/18/2008 3:16:25 PM
Mercury	ND	mg/Kg	0.033						
Sample ID: MB-15767		*MBLK*			Batch ID:	**15767**	Analysis Date:		4/28/2008 2:31:52 PM
Mercury	ND	mg/Kg	0.033						
Sample ID: LCS-15688		*LCS*			Batch ID:	**15688**	Analysis Date:		4/18/2008 3:17:58 PM
Mercury	0.1661	mg/Kg	0.033	99.7	80	120			
Sample ID: LCS-15767		*LCS*			Batch ID:	**15767**	Analysis Date:		4/28/2008 2:33:26 PM
Mercury	0.1608	mg/Kg	0.033	94.4	80	120			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon **Work Order:** 0804138

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 6010B: Soil Metals									
Sample ID: MB-15629		*MBLK*			Batch ID:	**15629**	Analysis Date:	4/16/2008 7:48:38 AM	
Arsenic	ND	mg/Kg	2.5						
Barium	ND	mg/Kg	0.10						
Cadmium	ND	mg/Kg	0.10						
Chromium	ND	mg/Kg	0.30						
Lead	ND	mg/Kg	0.25						
Selenium	ND	mg/Kg	2.5						
Silver	ND	mg/Kg	0.25						
Sample ID: MB-15664		*MBLK*			Batch ID:	**15664**	Analysis Date:	4/21/2008 9:14:32 AM	
Arsenic	ND	mg/Kg	2.5						
Barium	ND	mg/Kg	0.10						
Cadmium	ND	mg/Kg	0.10						
Chromium	ND	mg/Kg	0.30						
Selenium	ND	mg/Kg	2.5						
Silver	ND	mg/Kg	0.25						
Sample ID: MB-15708		*MBLK*			Batch ID:	**15708**	Analysis Date:	4/23/2008 7:56:25 AM	
Arsenic	ND	mg/Kg	2.5						
ium	ND	mg/Kg	0.10						
dmium	ND	mg/Kg	0.10						
Chromium	ND	mg/Kg	0.30						
Selenium	ND	mg/Kg	2.5						
Sample ID: MB-15664		*MBLK*			Batch ID:	**15664**	Analysis Date:	4/28/2008 7:36:54 AM	
Lead	ND	mg/Kg	0.25						
Sample ID: MB-15708		*MBLK*			Batch ID:	**15708**	Analysis Date:	4/28/2008 9:26:38 AM	
Lead	ND	mg/Kg	0.25						
Silver	ND	mg/Kg	0.25						
Sample ID: LCS-15629		*LCS*			Batch ID:	**15629**	Analysis Date:	4/16/2008 7:51:14 AM	
Arsenic	23.52	mg/Kg	2.5	94.1	80	120			
Barium	24.17	mg/Kg	0.10	96.3	80	120			
Cadmium	24.12	mg/Kg	0.10	96.5	80	120			
Chromium	24.50	mg/Kg	0.30	98.0	80	120			
Lead	23.25	mg/Kg	0.25	93.0	80	120			
Selenium	24.71	mg/Kg	2.5	98.8	80	120			
Silver	24.42	mg/Kg	0.25	97.2	80	120			
Sample ID: LCS-15664		*LCS*			Batch ID:	**15664**	Analysis Date:	4/21/2008 9:17:11 AM	
Arsenic	24.46	mg/Kg	2.5	97.8	80	120			
Barium	25.36	mg/Kg	0.10	101	80	120			
Cadmium	26.14	mg/Kg	0.10	105	80	120			
Chromium	26.14	mg/Kg	0.30	105	80	120			
Selenium	25.50	mg/Kg	2.5	102	80	120			
Silver	25.83	mg/Kg	0.25	103	80	120			
Sample ID: LCS-15708		*LCS*			Batch ID:	**15708**	Analysis Date:	4/23/2008 7:59:01 AM	
enic	24.89	mg/Kg	2.5	99.5	80	120			

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon
Work Order: 0804138

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 6010B: Soil Metals									
Sample ID: LCS-15708		*LCS*			Batch ID:	**15708**	Analysis Date:	4/23/2008 7:59:01 AM	
Barium	25.23	mg/Kg	0.10	101	80	120			
Cadmium	24.98	mg/Kg	0.10	99.5	80	120			
Chromium	25.63	mg/Kg	0.30	103	80	120			
Selenium	25.36	mg/Kg	2.5	95.3	80	120			
Sample ID: LCS-15664		*LCS*			Batch ID:	**15664**	Analysis Date:	4/28/2008 7:39:25 AM	
Lead	24.63	mg/Kg	0.25	98.5	80	120			
Sample ID: LCS-15708		*LCS*			Batch ID:	**15708**	Analysis Date:	4/28/2008 9:28:37 AM	
Lead	26.03	mg/Kg	0.25	104	80	120			
Silver	24.84	mg/Kg	0.25	98.5	80	120			

Qualifiers:

- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon **Work Order:** 0804138

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: mb-15641		*MBLK*			**Batch ID: 15641**		**Analysis Date: 4/19/2008 12:03:32 PM**		
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.050						
1,2,4-Trimethylbenzene	ND	mg/Kg	0.050						
1,3,5-Trimethylbenzene	ND	mg/Kg	0.050						
1,2-Dichloroethane (EDC)	ND	mg/Kg	0.050						
1,2-Dibromoethane (EDB)	ND	mg/Kg	0.050						
Naphthalene	ND	mg/Kg	0.10						
1-Methylnaphthalene	ND	mg/Kg	0.20						
2-Methylnaphthalene	ND	mg/Kg	0.20						
Acetone	ND	mg/Kg	0.75						
Bromobenzene	ND	mg/Kg	0.050						
Bromodichloromethane	ND	mg/Kg	0.050						
Bromoform	ND	mg/Kg	0.050						
Bromomethane	ND	mg/Kg	0.10						
2-Butanone	ND	mg/Kg	0.50						
Carbon disulfide	ND	mg/Kg	0.50						
Carbon tetrachloride	ND	mg/Kg	0.10						
Chlorobenzene	ND	mg/Kg	0.050						
Chloroethane	ND	mg/Kg	0.10						
Chloroform	ND	mg/Kg	0.050						
Chloromethane	ND	mg/Kg	0.050						
2-Chlorotoluene	ND	mg/Kg	0.050						
4-Chlorotoluene	ND	mg/Kg	0.050						
cis-1,2-DCE	ND	mg/Kg	0.050						
cis-1,3-Dichloropropene	ND	mg/Kg	0.050						
1,2-Dibromo-3-chloropropane	ND	mg/Kg	0.10						
Dibromochloromethane	ND	mg/Kg	0.050						
Dibromomethane	ND	mg/Kg	0.10						
1,2-Dichlorobenzene	ND	mg/Kg	0.050						
1,3-Dichlorobenzene	ND	mg/Kg	0.050						
1,4-Dichlorobenzene	ND	mg/Kg	0.050						
Dichlorodifluoromethane	ND	mg/Kg	0.050						
1,1-Dichloroethane	ND	mg/Kg	0.10						
1,1-Dichloroethene	ND	mg/Kg	0.050						
1,2-Dichloropropane	ND	mg/Kg	0.050						
1,3-Dichloropropane	ND	mg/Kg	0.050						
2,2-Dichloropropane	ND	mg/Kg	0.10						
1,1-Dichloropropene	ND	mg/Kg	0.10						
Hexachlorobutadiene	ND	mg/Kg	0.10						
2-Hexanone	ND	mg/Kg	0.50						
Isopropylbenzene	ND	mg/Kg	0.050						
p-Isopropyltoluene	ND	mg/Kg	0.050						

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon **Work Order:** 0804138

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: mb-15641		*MBLK*			Batch ID:	15641	Analysis Date:	4/19/2008 12:03:32 PM	
4-Methyl-2-pentanone	ND	mg/Kg	0.50						
Methylene chloride	ND	mg/Kg	0.15						
n-Butylbenzene	ND	mg/Kg	0.050						
n-Propylbenzene	ND	mg/Kg	0.050						
sec-Butylbenzene	ND	mg/Kg	0.050						
Styrene	ND	mg/Kg	0.050						
tert-Butylbenzene	ND	mg/Kg	0.050						
1,1,1,2-Tetrachloroethane	ND	mg/Kg	0.050						
1,1,2,2-Tetrachloroethane	ND	mg/Kg	0.050						
Tetrachloroethene (PCE)	ND	mg/Kg	0.050						
trans-1,2-DCE	ND	mg/Kg	0.050						
trans-1,3-Dichloropropene	ND	mg/Kg	0.050						
1,2,3-Trichlorobenzene	ND	mg/Kg	0.10						
1,2,4-Trichlorobenzene	ND	mg/Kg	0.050						
1,1,1-Trichloroethane	ND	mg/Kg	0.050						
1,1,2-Trichloroethane	ND	mg/Kg	0.050						
Trichloroethene (TCE)	ND	mg/Kg	0.050						
Trichlorofluoromethane	ND	mg/Kg	0.050						
1,2,3-Trichloropropane	ND	mg/Kg	0.10						
Vinyl chloride	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: mb-15642		*MBLK*			Batch ID:	15642	Analysis Date:	4/20/2008 2:16:06 AM	
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.050						
1,2,4-Trimethylbenzene	ND	mg/Kg	0.050						
1,3,5-Trimethylbenzene	ND	mg/Kg	0.050						
1,2-Dichloroethane (EDC)	ND	mg/Kg	0.050						
1,2-Dibromoethane (EDB)	ND	mg/Kg	0.050						
Naphthalene	ND	mg/Kg	0.10						
1-Methylnaphthalene	ND	mg/Kg	0.20						
2-Methylnaphthalene	ND	mg/Kg	0.20						
Acetone	ND	mg/Kg	0.75						
Bromobenzene	ND	mg/Kg	0.050						
Bromodichloromethane	ND	mg/Kg	0.050						
Bromoform	ND	mg/Kg	0.050						
Bromomethane	ND	mg/Kg	0.10						
2-Butanone	ND	mg/Kg	0.50						
Carbon disulfide	ND	mg/Kg	0.50						
Carbon tetrachloride	ND	mg/Kg	0.10						
Chlorobenzene	ND	mg/Kg	0.050						
Chloroethane	ND	mg/Kg	0.10						
Chloroform	ND	mg/Kg	0.050						

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon **Work Order:** 0804138

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: mb-15642		*MBLK*			Batch ID: **15642**		Analysis Date:	4/20/2008 2:16:06 AM	
Chloromethane	ND	mg/Kg	0.050						
2-Chlorotoluene	ND	mg/Kg	0.050						
4-Chlorotoluene	ND	mg/Kg	0.050						
cis-1,2-DCE	ND	mg/Kg	0.050						
cis-1,3-Dichloropropene	ND	mg/Kg	0.050						
1,2-Dibromo-3-chloropropane	ND	mg/Kg	0.10						
Dibromochloromethane	ND	mg/Kg	0.050						
Dibromomethane	ND	mg/Kg	0.10						
1,2-Dichlorobenzene	ND	mg/Kg	0.050						
1,3-Dichlorobenzene	ND	mg/Kg	0.050						
1,4-Dichlorobenzene	ND	mg/Kg	0.050						
Dichlorodifluoromethane	ND	mg/Kg	0.050						
1,1-Dichloroethane	ND	mg/Kg	0.10						
1,1-Dichloroethene	ND	mg/Kg	0.050						
1,2-Dichloropropane	ND	mg/Kg	0.050						
1,3-Dichloropropane	ND	mg/Kg	0.050						
2,2-Dichloropropane	ND	mg/Kg	0.10						
1-Dichloropropene	ND	mg/Kg	0.10						
Hexachlorobutadiene	ND	mg/Kg	0.10						
2-Hexanone	ND	mg/Kg	0.50						
Isopropylbenzene	ND	mg/Kg	0.050						
4-Isopropyltoluene	ND	mg/Kg	0.050						
4-Methyl-2-pentanone	ND	mg/Kg	0.50						
Methylene chloride	ND	mg/Kg	0.15						
n-Butylbenzene	ND	mg/Kg	0.050						
n-Propylbenzene	ND	mg/Kg	0.050						
sec-Butylbenzene	ND	mg/Kg	0.050						
Styrene	ND	mg/Kg	0.050						
tert-Butylbenzene	ND	mg/Kg	0.050						
1,1,1,2-Tetrachloroethane	ND	mg/Kg	0.050						
1,1,2,2-Tetrachloroethane	ND	mg/Kg	0.050						
Tetrachloroethene (PCE)	ND	mg/Kg	0.050						
trans-1,2-DCE	ND	mg/Kg	0.050						
trans-1,3-Dichloropropene	ND	mg/Kg	0.050						
1,2,3-Trichlorobenzene	ND	mg/Kg	0.10						
1,2,4-Trichlorobenzene	ND	mg/Kg	0.050						
1,1,1-Trichloroethane	ND	mg/Kg	0.050						
1,1,2-Trichloroethane	ND	mg/Kg	0.050						
Trichloroethene (TCE)	ND	mg/Kg	0.050						
Trichlorofluoromethane	ND	mg/Kg	0.050						
1,2,3-Trichloropropane	ND	mg/Kg	0.10						
Vinyl chloride	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
ample ID: lcs-15641		*LCS*			Batch ID: **15641**		Analysis Date:	4/19/2008 12:39:09 PM	

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon
Work Order: 0804138

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: lcs-15641		*LCS*			Batch ID: **15641**		Analysis Date:	4/19/2008 12:39:09 PM	
Benzene	1.034	mg/Kg	0.050	103	66.9	142			
Toluene	0.9402	mg/Kg	0.050	94.0	78.4	128			
Chlorobenzene	0.9868	mg/Kg	0.050	98.7	78.2	127			
1,1-Dichloroethene	1.059	mg/Kg	0.050	106	72.6	150			
Trichloroethene (TCE)	0.7977	mg/Kg	0.050	79.8	72.2	120			
Sample ID: lcs-15642		*LCS*			Batch ID: **15642**		Analysis Date:	4/20/2008 2:51:27 AM	
Benzene	1.018	mg/Kg	0.050	102	66.9	142			
Toluene	0.9517	mg/Kg	0.050	95.2	78.4	128			
Chlorobenzene	0.9958	mg/Kg	0.050	99.6	78.2	127			
1,1-Dichloroethene	0.9984	mg/Kg	0.050	99.8	72.6	150			
Trichloroethene (TCE)	0.7805	mg/Kg	0.050	78.1	72.2	120			
Sample ID: lcsd-15641		*LCSD*			Batch ID: **15641**		Analysis Date:	4/19/2008 1:15:05 PM	
Benzene	1.023	mg/Kg	0.050	102	66.9	142	1.12	20	
Toluene	0.9445	mg/Kg	0.050	94.4	78.4	128	0.453	20	
Chlorobenzene	1.021	mg/Kg	0.050	102	78.2	127	3.42	20	
1,1-Dichloroethene	1.099	mg/Kg	0.050	110	72.6	150	3.63	20	
Trichloroethene (TCE)	0.7770	mg/Kg	0.050	77.7	72.2	120	2.62	20	
Sample ID: lcsd-15642		*LCSD*			Batch ID: **15642**		Analysis Date:	4/20/2008 3:26:44 AM	
Benzene	1.054	mg/Kg	0.050	105	66.9	142	3.49	20	
Toluene	0.8732	mg/Kg	0.050	87.3	78.4	128	8.60	20	
Chlorobenzene	0.9538	mg/Kg	0.050	95.4	78.2	127	4.30	20	
1,1-Dichloroethene	1.048	mg/Kg	0.050	105	72.6	150	4.84	20	
Trichloroethene (TCE)	0.7844	mg/Kg	0.050	78.4	72.2	120	0.492	20	

Qualifiers:

- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon **Work Order:** 0804138

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5ml rb II		*MBLK*			**Batch ID: R28173**		**Analysis Date: 4/19/2008 6:07:13 AM**		
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0						
1,2,4-Trimethylbenzene	ND	µg/L	1.0						
1,3,5-Trimethylbenzene	ND	µg/L	1.0						
1,2-Dichloroethane (EDC)	ND	µg/L	1.0						
1,2-Dibromoethane (EDB)	ND	µg/L	1.0						
Naphthalene	ND	µg/L	2.0						
1-Methylnaphthalene	ND	µg/L	4.0						
2-Methylnaphthalene	ND	µg/L	4.0						
Acetone	ND	µg/L	10						
Bromobenzene	ND	µg/L	1.0						
Bromodichloromethane	ND	µg/L	1.0						
Bromoform	ND	µg/L	1.0						
Bromomethane	ND	µg/L	1.0						
2-Butanone	ND	µg/L	10						
Carbon disulfide	ND	µg/L	10						
Carbon Tetrachloride	ND	µg/L	1.0						
Chlorobenzene	ND	µg/L	1.0						
Chloroethane	ND	µg/L	2.0						
Chloroform	ND	µg/L	1.0						
Chloromethane	ND	µg/L	1.0						
2-Chlorotoluene	ND	µg/L	1.0						
4-Chlorotoluene	ND	µg/L	1.0						
cis-1,2-DCE	ND	µg/L	1.0						
cis-1,3-Dichloropropene	ND	µg/L	1.0						
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0						
Dibromochloromethane	ND	µg/L	1.0						
Dibromomethane	ND	µg/L	1.0						
1,2-Dichlorobenzene	ND	µg/L	1.0						
1,3-Dichlorobenzene	ND	µg/L	1.0						
1,4-Dichlorobenzene	ND	µg/L	1.0						
Dichlorodifluoromethane	ND	µg/L	1.0						
1,1-Dichloroethane	ND	µg/L	1.0						
1,1-Dichloroethene	ND	µg/L	1.0						
1,2-Dichloropropane	ND	µg/L	1.0						
1,3-Dichloropropane	ND	µg/L	1.0						
2,2-Dichloropropane	ND	µg/L	2.0						
1,1-Dichloropropene	ND	µg/L	1.0						
Hexachlorobutadiene	ND	µg/L	1.0						
2-Hexanone	ND	µg/L	10						
Isopropylbenzene	ND	µg/L	1.0						
4-Isopropyltoluene	ND	µg/L	1.0						

Qualifiers:

- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon
Work Order: 0804138

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: 5mt rb II		*MBLK*			Batch ID: **R28173**		Analysis Date:		4/19/2008 6:07:13 AM
4-Methyl-2-pentanone	ND	µg/L	10						
Methylene Chloride	ND	µg/L	3.0						
n-Butylbenzene	ND	µg/L	1.0						
n-Propylbenzene	ND	µg/L	1.0						
sec-Butylbenzene	ND	µg/L	1.0						
Styrene	ND	µg/L	1.0						
tert-Butylbenzene	ND	µg/L	1.0						
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0						
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0						
Tetrachloroethene (PCE)	ND	µg/L	1.0						
trans-1,2-DCE	ND	µg/L	1.0						
trans-1,3-Dichloropropene	ND	µg/L	1.0						
1,2,3-Trichlorobenzene	ND	µg/L	1.0						
1,2,4-Trichlorobenzene	ND	µg/L	1.0						
1,1,1-Trichloroethane	ND	µg/L	1.0						
1,1,2-Trichloroethane	ND	µg/L	1.0						
Trichloroethene (TCE)	ND	µg/L	1.0						
Trichlorofluoromethane	ND	µg/L	1.0						
1,2,3-Trichloropropane	ND	µg/L	2.0						
Vinyl chloride	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	1.5						
Sample ID: 100ng lcs II		*LCS*			Batch ID: **R28173**		Analysis Date:		4/19/2008 5:38:04 AM
Benzene	21.72	µg/L	1.0	109	86.8	120			
Toluene	18.58	µg/L	1.0	92.9	64.1	127			
Chlorobenzene	17.96	µg/L	1.0	89.8	82.4	113			
1,1-Dichloroethene	25.96	µg/L	1.0	130	86.5	132			
Trichloroethene (TCE)	21.13	µg/L	1.0	106	77.3	123			

Qualifiers:

- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name WESTERN REFINING GALLU — Date Received: 4/11/2008

Work Order Number 0804138 — Received by: AT

Checklist completed by: _____ 4/11/08 — Sample ID labels checked by: AS /AT

Signature — Date — Initials

Matrix: — Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace? No VOA vials submitted ☐		Yes ☑	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☑	No ☐	N/A ☐	
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐	

Container/Temp Blank temperature? 3° *<6° C Acceptable* If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Western Refining Co - Gallup

Address: Route 3 Box 7 Gallup NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package: cell 307 399-0890

☒ Standard ☐ Level 4 (Full Validation)

☐ Other

☐ EDD (Type)

Turn-Around Time: ☒ Standard ☐ Rush

Project Name: Evaporation Pond/Aeration Lagoon

Project #: 197-019-001

Project Manager: Regina Allen

Sampler: GP/SM

On Ice: ☒ Yes ☐ No

Sample Temperature: 3 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0804138	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8260)	8310 (PNA or PAH)	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	RCRA metals (MDC)	Air Bubbles (Y or N)
4.9.08	6:15pm	EP1-3	4oz/2	None	-1			X							X	X	X	
4.9.08	6:00pm	EP1-4	4oz/2	None	-2			X							X	X	X	
4.9.08	5:45pm	EP1-5	4oz/2	None	-3			X							X	X	X	
4.10.08	1525	AL1-1-HP	4oz/2	None	-4			X							X	X	X	
4.10.08	1622	AL1-2-HP	4oz/2	None	-5			X							X	X	X	
4.10.08	2:15pm	AL1-3-HP	4oz/2	None	-6			X							X	X	X	
4.10.08	1050	AL1-4-HP	4oz/2	None	-7			X							X	X	X	
4.10.08	1020	AL1-5-HP	4oz/2	None	-8			X							X	X	X	
4.10.08	1710	AL1-1-SS	4oz/2	None	-9			X							X	X	X	
4.10.08	1725	AL1-2-SS	4oz/2	None	-10			X							X	X	X	
4.10.08	1735	AL1-3-SS	4oz/2	None	-11			X							X	X	X	
4.10.08	1755	AL1-4-SS	4oz/2	None	-12			X							X	X	X	

Date:	Time:	Relinquished by:	Received by:	Remarks:
4/11/08	14:55		4/11/08 1455	
Date:	Time:	Relinquished by:	Received by:	

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

Chain-of-Custody Record

Client: Western Refining Co - Gallup
Address: Route 3 Box 7
Gallup, NM 87301
Phone #: 505-722-3833
email or Fax#: 505-722-0210
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: Evaporation Pond/Aeration Lagoon
Project #: 697-019-001
Project Manager: Regina Allen
Sampler: GP/SM
On Ice: ☒ Yes ☐ No
Sample Temperature: 5 = 0.4 + 0

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

Analysis Request

Date	Time	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0804138	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8260)	8310 (PNA or PAH)	Anions (F,Cl,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	RCRA Metals 6010C				Air Bubbles (Y or N)
4-10-08	1800	AL1-SS	4oz/2	None	-13			X							X	X	X				
4-9-08	7:10pm	EP1-6	4oz/2	None	-14			X							X	X	X				
4-9-08	7:35pm	EP1-7	4oz/2	None	-15			X							X	X	X				
4-9-08	7:17pm	EP1-8	4oz/2	None	-16			X							X	X	X				
4-9-08	1000	AL2-3-SS-MS	4oz/2	None	32 -17 4/11/08			X							X	X	X				
4-9-08	1000	AL2-3-SS-MSD	4oz/2	None	-32 -18 4/11/08			X							X	X	X				
4-9-08	~~1000~~	BD-2	4oz/2	None	-19			X							X	X	X				
4-8-08		BD-1	4oz/2	None	-20			X							X	X	X				
4-8-08	1645	EB040808	40mL/3	HCl	-21										X						
4-10-08	735	EB040908	40mL/3	HCl	-22										X						
4-11-08	835	EB041008	40mL/3	HCl	-23										X						
		~~EB041~~ Trip Blank	40mL/2	HCl	-24			X 4/11/08							X	X	X				

Date: 4/11/08 Time: 14:55 Relinquished by: Received by: 4/11/08 1455
Date: Time: Relinquished by: Received by:
Remarks: 4/11/08

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

Chain-of-Custody Record

Client: Western Refining Co - Gallup

Address: Route 3 Box 7 Gallup, NM 87301

Phone #: 505-722-3833

email or Fax#: 505-722-0210

QA/QC Package:
- [x] Standard
- [ ] Level 4 (Full Validation)
- [ ] Other
- [ ] EDD (Type)

Turn-Around Time:
- [x] Standard
- [ ] Rush

Project Name: Evaporation Pond/Aeration Lagoon

Project #: 697-019-001

Project Manager: Regina Allen

Sampler: GP/SM

On Ice: Yes

Sample Temperature: 5 °C

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

Analysis Request

Date	Time	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0804138	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8260)	8310 (PNA or PAH)	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	RCRA metals (ANDC)	Air Bubbles (Y or N)
4.8.08	1105	AL2-1-HP	4oz/2	None	-25			X							X	X	X	
4.8.08	1515	AL2-2-HP	4oz/2	None	-26			X							X	X	X	
4.8.08	1215	AL2-3-HP	4oz/2	None	-27			X							X	X	X	
4.8.08	1015	AL2-4-HP	4oz/2	None	-28			X							X	X	X	
4.9.08	820	AL2-5-HP	4oz/2	None	-29			X							X	X	X	
4.9.08	1040	AL2-1-SS	4oz/2	None	-30			X							X	X	X	
4.8.08	1555	AL2-2-SS	4oz/02	None	-31			X							X	X	X	
4.9.08	1000	AL2-3-SS	4oz/02	None	-32			X							X	X	X	
4.9.08	1025	AL2-4-SS	4oz/02	None	-33			X							X	X	X	
4.9.08	940	AL2-5-SS	4oz/02	None	-34			X							X	X	X	
4.9.08	1625 pm	EP1-1	4oz/02	None	-35			X							X	X	X	
4.9.08	1645 pm	EP1-2	4oz/02	None	-36			X							X	X	X	

Date:	Time:	Relinquished by:	Received by:	Remarks:
4/11/08	14:55		4/11/08 1455	
Date:	Time:	Relinquished by:	Received by:	

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

Hall Environmental Analysis Laboratory, Inc. Date: *21-May-08*

CLIENT: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon
Lab Order: 0804138

CASE NARRATIVE

Analytical notes:

Sample Analysis:
EPA method 8015B
"S" flags denote that the surrogate was not recoverable due to sample dilution and/or matrix interferences.

EPA method 8270B
"S" flags denote that the surrogate was low or not recoverable due to sample dilution and/or matrix interferences.

MS/MSD:
EPA Method 8015B, 8021B, 8270B
"S" flags denote that the recovery of the spiked compounds were poor due to dilution and matrix interferences. Several of the 8270B phenols were not recoverable due to high concentrations of petroleum hydrocarbons.

EPA Method 7471
Mercury was not recovered due to the high level of mercury in the sample. The amount that was spiked into the sample was diluted out by the x50 dilution.

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon **Work Order:** 0804138

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Gasoline Range									
Sample ID: 0804138-32AMSD		*MSD*			Batch ID:	15642	Analysis Date:		4/18/2008 8:52:40 PM
Gasoline Range Organics (GRO)	661.2	mg/Kg	100	132	69.5	120	1.17	11.6	S
Sample ID: 0804138-32AMS		*MS*			Batch ID:	15642	Analysis Date:		4/18/2008 8:22:32 PM
Gasoline Range Organics (GRO)	669.0	mg/Kg	100	134	69.5	120			S
Method: EPA Method 8260B: VOLATILES									
Sample ID: 0804138-32A MSD		*MSD*			Batch ID:	15642	Analysis Date:		4/21/2008 12:01:13 PM
Benzene	6.620	mg/Kg	0.50	64.4	66.9	142	14.9	20	S
Toluene	14.64	mg/Kg	0.50	133	78.4	128	15.0	20	S
Chlorobenzene	2.917	mg/Kg	0.50	29.2	78.2	127	21.2	20	SR
1,1-Dichloroethene	4.283	mg/Kg	0.50	42.8	72.6	150	29.8	20	SR
Trichloroethene (TCE)	2.718	mg/Kg	0.50	27.2	72.2	120	33.8	20	SR
Sample ID: 0804138-32A MS		*MS*			Batch ID:	15642	Analysis Date:		4/21/2008 11:25:48 AM
Benzene	5.700	mg/Kg	0.50	55.2	66.9	142			S
Toluene	12.52	mg/Kg	0.50	113	78.4	128			
Chlorobenzene	2.358	mg/Kg	0.50	23.6	78.2	127			S
1,1-Dichloroethene	3.172	mg/Kg	0.50	31.7	72.6	150			S
Trichloroethene (TCE)	1.932	mg/Kg	0.50	19.3	72.2	120			S

Qualifiers:

- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon **Work Order:** 0804138

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: 0804138-01B		*MSD*			Batch ID:	15669	Analysis Date:		4/17/2008
Acenaphthene	37.35	mg/Kg	0.10	149	24	125	20.5	30	S
4-Chloro-3-methylphenol	42.35	mg/Kg	0.10	84.8	14.6	154	18.7	30	
2-Chlorophenol	37.45	mg/Kg	0.10	75.0	13.3	149	9.36	30	
1,4-Dichlorobenzene	20.20	mg/Kg	0.10	80.6	23.6	118	5.08	30	
2,4-Dinitrotoluene	ND	mg/Kg	0.10	0	28	136	0	30	S
N-Nitrosodi-n-propylamine	ND	mg/Kg	0.10	0	28	114	0	30	S
4-Nitrophenol	ND	mg/Kg	0.10	0	13.1	150	0	0	S
Pentachlorophenol	ND	mg/Kg	0.33	0	20.1	139	0	30	S
Phenol	42.30	mg/Kg	0.10	72.5	17.3	141	7.48	30	
Pyrene	58.90	mg/Kg	0.10	142	29	131	6.30	30	S
1,2,4-Trichlorobenzene	18.25	mg/Kg	0.10	72.9	17.9	126	1.90	30	
Sample ID: 0804138-32Bmsd		*MSD*			Batch ID:	15682	Analysis Date:		4/20/2008
Acenaphthene	ND	mg/Kg	15	51.6	24	125	0	30	
4-Chloro-3-methylphenol	37.65	mg/Kg	15	75.4	14.6	154	9.17	30	
2-Chlorophenol	33.65	mg/Kg	15	67.4	13.3	149	3.48	30	
1,4-Dichlorobenzene	19.25	mg/Kg	15	76.8	23.6	118	6.43	30	
2,4-Dinitrotoluene	ND	mg/Kg	15	0	28	136	0	30	S
N-Nitrosodi-n-propylamine	ND	mg/Kg	15	0	28	114	0	30	S
4-Nitrophenol	ND	mg/Kg	15	0	13.1	150	0	0	S
Pentachlorophenol	ND	mg/Kg	50	0	20.1	139	0	30	S
Phenol	40.45	mg/Kg	15	65.3	17.3	141	0.739	30	
Pyrene	42.45	mg/Kg	15	-17.4	29	131	51.3	30	SR
1,2,4-Trichlorobenzene	17.55	mg/Kg	15	70.1	17.9	126	0.284	30	
Sample ID: 0804138-01B		*MS*			Batch ID:	15669	Analysis Date:		4/17/2008
Acenaphthene	30.40	mg/Kg	0.10	121	24	125			
4-Chloro-3-methylphenol	35.10	mg/Kg	0.10	70.3	14.6	154			
2-Chlorophenol	34.10	mg/Kg	0.10	68.3	13.3	149			
1,4-Dichlorobenzene	19.20	mg/Kg	0.10	76.6	23.6	118			
2,4-Dinitrotoluene	ND	mg/Kg	0.10	0	28	136			S
N-Nitrosodi-n-propylamine	ND	mg/Kg	0.10	0	28	114			S
4-Nitrophenol	ND	mg/Kg	0.10	0	13.1	150			S
Pentachlorophenol	ND	mg/Kg	0.33	0	20.1	139			S
Phenol	39.25	mg/Kg	0.10	66.4	17.3	141			
Pyrene	55.30	mg/Kg	0.10	127	29	131			
1,2,4-Trichlorobenzene	18.60	mg/Kg	0.10	74.3	17.9	126			
Sample ID: 0804138-32Bms		*MS*			Batch ID:	15682	Analysis Date:		4/20/2008
Acenaphthene	32.40	mg/Kg	15	129	24	125			S
4-Chloro-3-methylphenol	34.35	mg/Kg	15	68.8	14.6	154			
2-Chlorophenol	32.50	mg/Kg	15	65.1	13.3	149			
1,4-Dichlorobenzene	18.05	mg/Kg	15	72.1	23.6	118			
2,4-Dinitrotoluene	ND	mg/Kg	15	0	28	136			S
N-Nitrosodi-n-propylamine	ND	mg/Kg	15	0	28	114			S
4-Nitrophenol	ND	mg/Kg	15	0	13.1	150			S

Qualifiers:

- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Western Refining Southwest, Gallup
Project: Evaporation Pond/Aeration Lagoon **Work Order:** 0804138

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8270C: Semivolatiles									
Sample ID: 0804138-32Bms		*MS*			Batch ID:	15682	Analysis Date:		4/20/2008
Pentachlorophenol	ND	mg/Kg	50	0	20.1	139			S
Phenol	40.75	mg/Kg	15	65.9	17.3	141			
Pyrene	71.75	mg/Kg	15	99.6	29	131			
1,2,4-Trichlorobenzene	17.60	mg/Kg	15	70.3	17.9	126			
Method: EPA Method 7471: Mercury									
Sample ID: 0804138-32BMSD X		*MSD*			Batch ID:	15767	Analysis Date:		4/28/2008 3:51:41 PM
Mercury	8.503	mg/Kg	1.6	-253	75	125	4.10	20	S
Sample ID: 0804138-32BMS X50		*MS*			Batch ID:	15767	Analysis Date:		4/28/2008 3:45:08 PM
Mercury	8.162	mg/Kg	1.6	-462	75	125			S
Method: EPA Method 6010B: Soil Metals									
Sample ID: 0804138-32BMSD		*MSD*			Batch ID:	15708	Analysis Date:		4/23/2008 9:09:58 AM
Arsenic	31.49	mg/Kg	2.5	93.1	75	125	5.64	30	
Cadmium	23.47	mg/Kg	0.10	93.0	75	125	0.505	30	
Chromium	34.79	mg/Kg	0.30	85.4	75	125	0.167	30	
Selenium	22.76	mg/Kg	2.5	91.8	75	125	3.07	30	
Sample ID: 0804138-32BMS		*MS*			Batch ID:	15708	Analysis Date:		4/23/2008 9:07:19 AM
Arsenic	33.32	mg/Kg	2.5	102	75	125			
Cadmium	23.59	mg/Kg	0.10	95.0	75	125			
Chromium	34.73	mg/Kg	0.30	86.5	75	125			
Selenium	23.47	mg/Kg	2.5	96.3	75	125			

Qualifiers:

- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

APPENDIX D

DATA VALIDATIONS

Tier II Data Validation Report Summary

Client: Western Refining Southwest, Gallup	Laboratory: Hall Environmental Analysis Laboratory, Albuquerque, NM
Project Name: Evaporation Pond/Aeration Lagoon	Sample Matrix: Soil
Project Number: 072-697-016	Sample Start Date: April 8, 2008
Date Validated: May 21, 2008	Sample End Date: April 11, 2008
Parameters Included: TPH Method 8015B for Gasoline and Diesel, VOCs by 8260B, SVOCs by 8270C, and RCRA Metals by 6010B	
Laboratory Project IDs: 0804138	
Data Validator's Name: Christina Hiegel, Civil Engineer	

DATA EVALUATION CRITERIA SUMMARY

A Tier II Data Validation was performed by Trihydro Corporation's Chemical Data Evaluation Services group on the analytical data report package generated by Hall Environmental Analysis Laboratory evaluating samples from Western Refining Southwest, Gallup, New Mexico.

Precision, accuracy, method compliance, and completeness of this data package were assessed during this data review. Precision was determined by evaluating the calculated RPD values of samples from field duplicates pairs and laboratory duplicates pairs. Laboratory accuracy was established by reviewing the demonstrated laboratory control samples (LCS) and matrix spike recoveries (MS/MSD) to verify that none of the data were biased. Additionally, field accuracy was established by collecting field and trip blanks to monitor for possible ambient or cross contamination during sampling. Method compliance was established by reviewing holding times, detection limits, surrogate recoveries, method blanks, and laboratory control samples against method specific requirements. Completeness was evaluated by determining the overall ratio of the number of samples planned versus the number of samples with valid analyses. Determination of completeness included a review of the chain-of-custody, laboratory analytical methods, and any other necessary documents associated with this analytical data set.

Data were evaluated in general accordance with validation criteria set forth in the USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Superfund Organic Methods Data Review, document number USEPA-540-R-07-003, July 2007 with additional reference to USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Data Review, document number EPA 540/R-99-008 of October 1999 and the USEPA CLP National Functional Guidelines for Inorganic Data Review, document number EPA 540R-04-004, October 2004. Review of duplicates is conducted in accordance with USEPA Region 1 Laboratory Data Validation Function Guidelines for Evaluation of Organic Analysis, December 1996.

SAMPLE NUMBERS TABLE

Client Sample ID	Laboratory Sample Number
EP1-3	0804138-01
EP1-4	0804138-02
EP1-5	0804138-03
AL1-1-HP	0804138-04
AL1-2-HP	0804138-05
AL1-3-HP	0804138-06
AL1-4-HP	0804138-07
AL1-5-HP	0804138-08
AL1-1-SS	0804138-09
AL1-2-SS	0804138-10
AL1-3-SS	0804138-11
AL1-4-SS	0804138-12
AL1-5-SS	0804138-13
EP1-6	0804138-14
EP1-7	0804138-15
EP1-8	0804138-16
BD-2	0804138-19

Tier II Data Validation Report Summary

Client Sample ID	Laboratory Sample Number
BD-1	0804138-20
EB040808	0804138-21
EB040908	0804138-22
EB041008	0804138-23
Trip Blank	0804138-24
AL2-1-HP	0804138-25
AL2-2-HP	0804138-26
AL2-3-HP	0804138-27
AL2-4-HP	0804138-28
AL2-5-HP	0804138-29
AL2-1-SS	0804138-30
AL2-2-SS	0804138-31
AL2-3-SS	0804138-32
AL2-4-SS	0804138-33
AL2-5-SS	0804138-34
EP1-1	0804138-35
EP1-2	0804138-36

Tier II Data Validation Report

The samples were analyzed for client-specified analytes. Chain-of-Custody (COC) completeness is included in Section #2. The laboratory data were reviewed to evaluate compliance with the required methods and the quality of the reported data. A leading check mark (✓) indicates that the referenced data were deemed acceptable. A preceding crossed circle (⊗) signifies problems with the referenced data that may have warranted attaching qualifiers to the data.

- ✓ Data Completeness
- ✓ COC Documentation
- ✓ Holding Times and Preservation
- ✓ Laboratory Blanks
- ✓ Laboratory Control Samples (LCS/LCSD)
- ⊗ System Monitoring Compounds (Surrogates)
- ⊗ Matrix Spike/Matrix Spike Duplicate (MS/MSD)
- ⊗ Field Duplicates
- ✓ Laboratory Duplicate
- ✓ Field Blanks

OVERALL DATA PACKAGE ASSESSMENT

Based on a data validation review, the data are acceptable as delivered. Data qualified by the laboratory are discussed in Section #9.

The purpose of validating data and assigning qualifiers is to assist in proper data interpretation. Data which are not qualified meet the site data quality objectives. If values are assigned a "J" or "UJ" qualifier, the data may be used for site evaluation, with the reasons for qualification being given consideration when interpreting sample concentrations. Data points which are assigned an "R" qualifier should not be used for any site evaluation purposes.

Data Completeness

The analyses appeared to be performed as requested on the chain-of-custody records. The associated samples were received by the laboratory and appeared to be analyzed properly. No data points were rejected. Completeness of the data are calculated to be 100%

Validation Criteria Checklist	
Data validation qualifiers applied to data as a result of this review: J – Estimated value; UJ – Estimated reporting limit; JB – Estimated value due to blank detection.	
1. Did the laboratory identify any non-conformances related to the analytical data?	Yes
Comments: The laboratory noted that for Method 8015B, the "S" flag denotes that the surrogate was not recoverable due to sample dilution and/or matrix interferences. The laboratory noted that for Method 8270B, the "S" flag denotes that the surrogate was low or not recoverable due to sample dilution and or matrix interferences. For the MS/MSD by method 8015B, 8021B, and 8270B, the "S" flags denote that the recovery of spiked compounds were poor due to dilution and matrix interferences. Several of the 8270B phenols were not recoverable due to high concentrations of petroleum hydrocarbons. For Mercury by Method 7471, mercury was not recovered due to the high level of mercury in the sample. The amount that was spiked into the sample was diluted out by the 50 times dilution.	
2. Were sample chain-of-custody (COC) forms complete?	Yes
Comments: The COC forms, from field to laboratory, were complete, and custody was maintained as evidenced by field and laboratory personnel signatures, dates, and times of receipt. The Tier 1 validator indicated that analyses were correct.	
3. Were detection limits in accordance with the QAPP, permit, or method, or indicated as acceptable by the Tier 1 validator?	Yes
Comments: Several dilutions were required by the laboratory. Samples appeared to be diluted acceptably and no data will be qualified as a result of this review. Final useability of data with regards to dilutions will be determined by the project manager.	
4. Were the requested analytical methods in compliance with the QAPP, permit, or COC?	Yes
Comments: Analytical methods appeared to be acceptable and were verified during the Tier 1 validation.	
5. Were samples received in good condition within method specified requirements?	Yes
Comments: Samples were received on ice, intact, and in good condition with a cooler temperature within the 4°C +/- 2°C acceptance range at 3°C.	
6. Were samples analyzed within method specified or technical holding times?	Yes
Comments: Method specified holding times were met for the analyses reported.	
7. Were reported units appropriate for the associated sample matrix/matrices and method(s) of analyses?	Yes
Comments: Sample results were reported in units of mg/kg, which are acceptable units for the soil matrix.	
8. Do the laboratory reports include all constituents requested to be reported as indicated by the Tier 1 validator?	Yes
Comments: Reported constituents were in accordance with those requested and are acceptable according to the Tier 1 validator.	
9. Were data qualification flags used by the laboratory?	Yes
Comments: Data were qualified with the laboratory using an S or and SR. The S flag indicates that the spike recovery was outside accepted recovery limits. The R flag indicates that the RPD was outside of acceptable recovery limits.	
10. Was there indication from the laboratory that the initial or continuous calibration verification results were within acceptable limits?	N/A
Comments: Initial and continuing calibration data were not included as part of this data set; however, these data are assumed to be acceptable as the laboratory did not note that any calibration verification results were outside acceptable limits.	
11. Was the total number of method blank samples prepared equal to at least 5% of the total number of samples, or analyzed as required by the method?	Yes
Comments: One method blank was analyzed for each batch.	
12. Were method blank detections reported for this data set?	No
Comments: No method blank detections were reported with this data set.	

13. Was the total number of matrix spike samples prepared equal to at least 5% of the total number of samples, or analyzed as required by the method? Yes

Comments: One MS/MSD was analyzed for GRO batch 15642, VOC batch 15642, mercury batch 15767, and metals batch 15708 and was prepared from sample AL2-3-SS. Additionally, an MS/MSD was analyzed for semi-volatiles batch 15669 and 15682 and was prepared from sample EP1-3 and AL2-3-SS, respectively.

14. Were matrix spike recoveries within laboratory-specified limits? No

Comments: Matrix spike recoveries were outside of acceptable limits for most batches and analytes. For GRO batch 15642, the MS and MSD were outside of acceptable limits at 132% and 134% where the acceptable range is 69.5-120%. As a result, all GRO detections will be qualified.

For semivolatiles batch 15669, several MS/MSD recoveries were outside of acceptable limits including acenaphthene (149%-MSD; acceptable range 24-125%), 2,4-dinitrotoluene (0% and 0%; acceptable range 28-136%), N-nitrosodi-n-propylamine (0% and 0%; acceptable range 28-114%), 4-nitrophenol ((0% and 0%; acceptable range 13.1-150%), pentachlorophenol (0% and 0%; acceptable range 20.1-139%). Additionally, in batch 15682, several MS/MSD recoveries were outside of acceptable limits including acenaphthene (129%-MS; acceptable range 24-125%), 2,4-dinitrotoluene (0% and 0%; acceptable range 28-136%), N-nitrosodi-n-propylamine (0% and 0%; acceptable range 28-114%), 4-nitrophenol ((0% and 0%; acceptable range 13.1-150%), pentachlorophenol (0% and 0%; acceptable range 20.1-135%), and pyrene (-17.1%; acceptable range 29-131%). Additional the RPD for pyrene was 51.3%, which was greater than the acceptable RPD of 30%. Due to most SVOC MS/MSD recoveries being outside of acceptable limits, all SVOC results will be qualified.

For mercury batch 15767, the surrogate recoveries were -462% and -253% where the acceptable range is 75-125%. Due to matrix interferences for mercury, all mercury data will be qualified.

For VOC batch 15642, the MS/MSD recoveries for benzene (55.2% and 64.4%; acceptable range 66.9%-142%), toluene (133%-MSD; acceptable range 78.4-128%), chlorobenzene (23.6% and 29.2%; acceptable range 78.2-127%), 1,1-dichloroethene (31.7% and 42.8%; acceptable range 72.6-150%), and trichloroethene (19.3% and 27.2%; acceptable range 72.2-120%) were outside of acceptable limits. Additionally, the RPD values for chlorobenzene (21.2%), 1,1-dichloroethene (29.8%), and trichloroethene (33.8%) were above the upper RPD limit of 20%. For VOCs, due to most recoveries being outside of acceptable limits, all VOC results will be qualified.

15. Was the total number of laboratory control samples analyzed equal to at least 5% of the total number of samples, or analyzed as required by the method? Yes

Comments: Laboratory control samples were analyzed for each batch.

16. Were laboratory control recoveries within laboratory-specified limits? Yes

Comments: The laboratory control recoveries were within specified limits.

17. Were surrogate recoveries within laboratory control limits? No

Comments: Surrogate recoveries for several samples were outside of acceptable recovery ranges. For Method 8015B and analyses of DRO, the laboratory reported 0% recovery (acceptable range 61.7%-135%) for all samples. No data will be qualified since discussions with the laboratory indicated that the surrogates were diluted out.

For sample EP1-2, the semivolatile (SVOC) surrogate for 4-terphenyl-d14 (160%; acceptable range 34.6-151%) was above acceptable limits. For sample EP1-1, the SVOC surrogate 2,4,6-tribromophenol was outside of acceptable limits (28.9%; acceptable range 35.5-141%). For sample AL2-5-SS, the surrogate 2,4,6-tribromophenol was outside of acceptable limits (12.3%; acceptable range 35.5-141%). For sample BD-1, the surrogate 2,4,6-tribromophenol was outside of acceptable limits (30.1%; acceptable range 35.5-141%). For sample EP1-7, the SVOC surrogate 2,4,6-tribromophenol was outside of acceptable limits (33.5%; acceptable range 35.5-141%). Lastly for sample AL1-4-SS, the SVOC surrogate 2,4,6-tribromophenol was outside of acceptable limits (34.3%; acceptable range 35.5-141%). For these samples, only one out of six surrogates was outside of acceptable limits; therefore, no qualification is required.

For sample AL1-5-SS for SVOCs, the surrogate 2,4,6-tribromophenol was outside of acceptable limits (21.9%; acceptable range 35.5-141%) and the surrogate 4-terphenyl-d14 was outside of acceptable limits (33.5%; acceptable range 34.6-151%). For sample BD-2, the surrogate 2,4,6-tribromophenol was outside of acceptable limits (19.9%; acceptable range 35.5-141%) and the surrogate 2-fluorobiphenyl was outside of acceptable limits (0%; acceptable range 30.4-128%). Lastly, for sample AL2-3-SS, the surrogate 2,4,6-tribromophenol was outside of acceptable limits (25.9%; acceptable range 35.5-141%) and the surrogate 4-terphenyl-d14 was outside of acceptable limits (31.7%; acceptable range 34.6-151%). In each case, one out of range surrogate was an acid and the other was a base/neutral. No data were qualified since the other two acid surrogates and other two base/neutral surrogates were within acceptable limits.

For sample AL2-2-SS for VOCs, the surrogate 4-bromofluorobenzene was recovered slightly below (79.2%) the lower recovery range of 79.3-126%. As a result, the detected and non-detected VOC values for this sample will be qualified as J/UJ.

18. Was the number of equipment, trip, or field blanks collected equal to at least 10% of the total number of samples, or as required by the project guidelines, QAPP, SAP, or permit, or as indicated by the Tier 1 validator?	Yes
Comments: Three equipment blanks and one trip blank were collected and reported with these samples. Therefore, blanks were collected on a 10% basis.	
19. Were detections found in trip blanks, equipment blanks, or field blanks?	No
Comments: No detections were found in the blanks.	
20. Was the number of field duplicates collected equal to at least 10% of the total number of samples, or as required by the project guidelines, QAPP, SAP, or permit, or as indicated by the Tier 1 validator?	Yes
Comments: Sample BD-1 is a duplicate of AL2-2-SS and BD-2 is a duplicate of AL2-4-SS.	
21. Were field duplicate RPD values less than the upper RPD limit (soil [50%], water [30%], or air/vapor [25%]), as specified by the laboratory or method?	Yes
Comments: Most RPD values were acceptable with the exception of the RPD for 2-methylnaphthalene (Method 8270C) between AL2-4-SS and BD-2. As a result, all 2-methylnaphthalene was qualified. The other associated RPD values were acceptable.	
22. Were laboratory duplicate RPD values within laboratory-specified limits?	N/A
Comments: Laboratory duplicates were not reported by the laboratory.	
23. General Comments: The analyses were reported as being acceptable by the laboratory.	

Table 1. Qualification Summary, Western Refining Southwest, Gallup, New Mexico (0804138)

Analyte	Client Sample ID	Laboratory Assigned ID	Laboratory Result	Reviewer Qualifier	Reason for Qualification
Gasoline Range Organics	All Samples	All Samples	Detections	J	High MS and MSD results indicating a possible high bias
2-Methylnaphthalene (Method 8270C)	All Samples	All Samples	Detections/Non-Detections	J/UJ	High RPD (>100%) in the duplicate indicating poor repeatability
VOCs	AL2-2-SS	0804138-31	Detections/Non-Detections	J/UJ	Low surrogate recovery
VOCs	All Samples	All Samples	Detections/Non-Detections	J/UJ	Severe Matrix Interference
SVOCs	All Samples	All Samples	Detections/Non-Detections	J/UJ	Severe Matrix Interference
Mercury	All Samples	All Samples	Detections/Non-Detections	J/UJ	Severe Matrix Interference

J – Indicates estimated detection.
UJ – Indicates estimated detection below the reporting limit.

Table 2. Field Duplicate Summary, Western Refining Southwest, Gallup, New Mexico (0804138)

Parent Sample: AL2-2-SS / Duplicate Sample: BD-1			
Analyte	**Laboratory Result (mg/kg)**	**Duplicate Result (mg/kg)**	**Relative Percent Difference (RPD)**
Diesel Range Organics	260000	220000	16.7%
Motor Oil Organics	31000	ND(25000)	DL
Mercury	6.8	11	47.2%
Arsenic	13	12	8.0%
Barium	500	420	17.4%
Cadmium	0.32	0.46	35.9%
Chromium	21	22	4.7%
Lead	24	26	8.0%
Chrysene	ND(30)	48	DL
Fluorene	98	100	2.0%
2-Methylnaphthalene – 8270C	450	540	18.2%
3,4-methylphenol	ND(30)	30	DL
Naphthalene	38	48	23.3%
Phenanthrene	230	300	26.4%
Pyrene	ND(30)	56	DL
Toluene	2.1	1.3	47.1%
Ethylbenzene	0.72	ND(0.5)	DL
1,2,4-Trimethylbenzene	4.5	2.9	43.2%
1,3,5-Trimethylbenzene	1.1	0.61	57.3%*
Naphthalene	5.8	5.1	12.8%
1-Methylnaphthalene - 8260	26	23	12.2%
2-Methylnaphthalene - 8260	37	34	8.5%
n-Butylbenzene	1.0	0.65	42.4%
Xylenes	4.9	3.1	45.0%

Field duplicate RPD control limits should not exceed 30% for water, 50% for soil, or 25% for air or vapor as established by USEPA Region 1 Laboratory Data Validation Function Guidelines for Evaluation of Organic Analysis, December 1996.

DL – indicates that one result was detected and the other was non-detect. For the DL noted values, the detected value was within 2x the reporting limit and no qualification was required.
* - Indicates that one or both of the determinations was less than five times the reporting limit and a valid RPD could not be calculated; therefore, no data will be qualified.

Parent Sample: AL2-4-SS / Duplicate Sample: BD-2			
Analyte	Laboratory Result (mg/kg)	Duplicate Result (mg/kg)	Relative Percent Difference (RPD)
Diesel Range Organics	250000	350000	33.3%
Motor Oil Organics	35000	52000	39.1%
Mercury	8.1	5.5	38.2%
Arsenic	14	14	0.0%
Barium	190	210	10.0%
Cadmium	0.42	0.4	4.9%
Chromium	16	16	0.0%
Lead	32	29	9.8%
Chrysene	ND(30)	49	DL
Dibenzofuran	ND(30)	36	DL
Fluorene	44	130	98.9%*
2-Methylnaphthalene – 8270C	**190**	**640**	**108.4%**
3,4-methylphenol	ND(30)	35	DL
Naphthalene	44	67	41.4%
Phenanthrene	210	310	38.5%
Pyrene	ND(30)	51	DL
Toluene	1.6	1.2	28.6%
Ethylbenzene	0.56	ND(0.5)	DL
1,2,4-Trimethylbenzene	4.1	3.6	13.0%
1,3,5-Trimethylbenzene	0.72	0.56	25.0%
Naphthalene	5.4	4.1	27.4%
1-Methylnaphthalene - 8260	24	21	13.3%
2-Methylnaphthalene - 8260	30	24	22.2%
n-Butylbenzene	1.1	0.72	41.8%
Xylenes	4.0	3.1	25.4%

Field duplicate RPD control limits should not exceed 30% for water, 50% for soil, or 25% for air or vapor as established by USEPA Region 1 Laboratory Data Validation Function Guidelines for Evaluation of Organic Analysis, December 1996.

DL – indicates that one result was detected and the other was non-detect. For the DL noted values, the detected value was within 2x the reporting limit and no qualification was required.
* - Indicates that one or both of the determinations was less than five times the reporting limit and a valid RPD could not be calculated; therefore, no data will be qualified.

APPENDIX E

SURVCAD VOLUME CALCULATIONS

072SediVols200805-Vol-AL1-HP-SS

Volume Report Aeration Lagoon 1 Soft Sediment 5/30/2008 10:51

Comparing GRiD file:
H:/Projects/WesternRefining/Gallup/072-697-016/CADD/SurvCadData/AL1-HP.grd
and GRiD file: H:/Projects/WesternRefining/Gallup/072-697-016/CADD/SurvCadData/AL1-SS.grd

Grid corner locations: 6164.05,4854.71 to 6328.05,5025.71
Grid resolution X: 164, Y: 171 Grid cell size X: 1.00, Y: 1.00
Area in Cut : 0.0 S.F., 0.00 Acres
Area in Fill: 12,324.8 S.F., 0.28 Acres
Total inclusion area: 12,324.8 S.F., 0.28 Acres
Cut to Fill ratio: 0.00
Average Fill Depth: 3.21
Max Fill Depth: 5.88
Cut (C.Y.) / Area (acres): 0.00
Fill (C.Y.) / Area (acres): 5173.59
Cut volume: 0.0 C.F., 0.00 C.Y.
Fill volume: 39,522.8 C.F., 1,463.81 C.Y.

072SediVols200805-Vol-AL1-TD-HP

Volume Report Aeration Lagoon 1 Hardpack Sediment 5/30/2008 10:50

Comparing GRiD file:
H:/Projects/WesternRefining/Gallup/072-697-016/CADD/SurvCadData/AL1-TD.grd
and GRiD file: H:/Projects/WesternRefining/Gallup/072-697-016/CADD/SurvCadData/AL1-HP.grd

Grid corner locations: 6164.05,4854.71 to 6328.05,5025.71
Grid resolution X: 164, Y: 171 Grid cell size X: 1.00, Y: 1.00
Area in Cut : 0.0 S.F., 0.00 Acres
Area in Fill: 12,324.8 S.F., 0.28 Acres
Total inclusion area: 12,324.8 S.F., 0.28 Acres
Cut to Fill ratio: 0.00
Average Fill Depth: 0.50
Max Fill Depth: 2.47
Cut (C.Y.) / Area (acres): 0.00
Fill (C.Y.) / Area (acres): 808.43
Cut volume: 0.0 C.F., 0.00 C.Y.
Fill volume: 6,175.9 C.F., 228.74 C.Y.

072SediVols200805-Vol-AL2-HP-SS

Volume Report Aeration Lagoon 2 Soft Sediment 5/30/2008 10:49

Comparing GRiD file:
H:/Projects/WesternRefining/Gallup/072-697-016/CADD/SurvCadData/AL2-HP.grd
and GRiD file: H:/Projects/WesternRefining/Gallup/072-697-016/CADD/SurvCadData/AL2-SS.grd

Grid corner locations: 5968.13,4838.96 to 6183.13,5067.96
Grid resolution X: 215, Y: 229 Grid cell size X: 1.00, Y: 1.00
Area in Cut : 0.0 S.F., 0.00 Acres
Area in Fill: 19,902.8 S.F., 0.46 Acres
Total inclusion area: 19,902.8 S.F., 0.46 Acres
Cut to Fill ratio: 0.00
Average Fill Depth: 4.62
Max Fill Depth: 8.50
Cut (C.Y.) / Area (acres): 0.00
Fill (C.Y.) / Area (acres): 7450.55
Cut volume: 0.0 C.F., 0.00 C.Y.
Fill volume: 91,913.4 C.F., 3,404.20 C.Y.

072SediVols200805-Vol-AL2-TD-HP

Volume Report Aeration Lagoon 2 Hardpack Sediment 5/30/2008 10:47

Comparing GRiD file:
H:/Projects/WesternRefining/Gallup/072-697-016/CADD/SurvCadData/AL2-TD.grd
and GRiD file: H:/Projects/WesternRefining/Gallup/072-697-016/CADD/SurvCadData/AL2-HP.grd

Grid corner locations: 5968.13,4838.96 to 6183.13,5067.96
Grid resolution X: 215, Y: 229 Grid cell size X: 1.00, Y: 1.00
Area in Cut : 0.0 S.F., 0.00 Acres
Area in Fill: 19,902.8 S.F., 0.46 Acres
Total inclusion area: 19,902.8 S.F., 0.46 Acres
Cut to Fill ratio: 0.00
Average Fill Depth: 0.58
Max Fill Depth: 2.09
Cut (C.Y.) / Area (acres): 0.00
Fill (C.Y.) / Area (acres): 940.99
Cut volume: 0.0 C.F., 0.00 C.Y.
Fill volume: 11,608.5 C.F., 429.95 C.Y.

072SediVols200805-Vol-EP1-SS-TD

Volume Report Evaporation Pond 1 5/30/2008 11:03

Comparing GRiD file:
H:/Projects/WesternRefining/Gallup/072-697-016/CADD/SurvCadData/EP1-TD.grd
and GRiD file: H:/Projects/WesternRefining/Gallup/072-697-016/CADD/SurvCadData/EP1-SS.grd

Grid corner locations: 5981.50,5014.46 to 6297.50,5341.46
Grid resolution X: 316, Y: 327 Grid cell size X: 1.00, Y: 1.00
Area in Cut : 0.0 S.F., 0.00 Acres
Area in Fill: 53,891.7 S.F., 1.24 Acres
Total inclusion area: 53,891.7 S.F., 1.24 Acres
Cut to Fill ratio: 0.00
Average Fill Depth: 1.59
Max Fill Depth: 5.04
Cut (C.Y.) / Area (acres): 0.00
Fill (C.Y.) / Area (acres): 2568.95
Cut volume: 0.0 C.F., 0.00 C.Y.
Fill volume: 85,813.1 C.F., 3,178.26 C.Y.

Appendix B

Field Methods

Field Methods

Pursuant to the Investigation Work Plans for SWMU No.1 and No. 14, an investigation of soils and groundwater was conducted to determine and evaluate the presence, nature, extent, fate, and transport of contaminants. To accomplish this objective, soil borings and monitoring wells were installed at the Aeration Basin and Old API Separator. The field methods are described below and individual discussions are presented for the following activities:

- Drilling procedures;
- Soil screening;
- Decontamination procedures;
- Monitoring well development;
- Fluid level measurements;
- Purging of monitoring wells/groundwater sample collection;
- Sample collection and handling procedures;
- Vadose zone vapor sampling;
- Equipment calibration; and
- Management of investigation derived waste.

Drilling Procedures

The soil borings were drilled using the hollow-stem auger (HSA) method or a hand auger was used for shallow (two-foot) borings. Soil samples were collected continuously and logged by a qualified geologist in accordance with the Unified Soil Classification System (USCS) nomenclature. As shown on the boring logs, the data recorded included the lithologic interval, symbol, percent recovery, field screening results, and a sample description of the cuttings and core samples.

Soil Screening

Samples obtained from the borings were screened in the field on 2-foot intervals for evidence of contaminants. Field screening results were recorded on the soil boring logs. Field screening results were used to aid in the selection of soil samples for laboratory analysis. The primary screening methods include: (1) visual examination, (2) olfactory examination, and (3) headspace vapor screening for volatile organic compounds.

Visual screening included examining the soil samples for evidence of staining caused by petroleum-related compounds or other substances that may have caused staining of soils such as elemental sulfur or cyanide compounds. Headspace vapor screening was conducted and involved placing a soil sample in a plastic sealable bag allowing space for ambient air. The bag was sealed, labeled and then shaken gently to expose the soil to the air trapped in the

container. The sealed bag was allowed to rest for a minimum of 5 minutes while the vapors equilibrated. Vapors present within the sample bag's headspace were then measured by inserting the probe of a MiniRae 2000 portable volatile organic constituent (VOC) monitor in a small opening in the bag. The maximum value and the ambient air temperature were recorded on the field boring log for each sample. The screening results are presented in Table 3. Field screening results and any conditions that were considered to be capable of influencing the results of the field screening were recorded on the field logs.

Decontamination Procedures

The drilling equipment (e.g., hollow-stem augers) was decontaminated between each borehole using a high pressure potable water wash. The sampling equipment coming in direct contact with the samples (e.g., hand augers and split-spoon samplers) were decontaminated using a brush, as necessary, to remove larger particulate matter followed by a rinse with potable water, wash with nonphosphate detergent, rinse with potable water, and double rinse with deionized water. In the event that more than one SWMU was investigated during the day a new batch of wash water and rinse water was prepared prior to decontamination.

Monitoring Well Development

Following monitoring well completion activities, the new monitoring well (OAPIS-1) was developed using a bailer. Using a bailer attached to the end of the clean rope, groundwater was forced to flow in and out of the well screen by the repeated upward and downward motion of the bailer along the entire length of the well screen. The repeated plunging motion drew filter pack fines and loosened sediment into the well casing, improving the water quality within the surrounding formation and filter pack.

Once the well was surged for a minimum of 10 minutes, the groundwater/sediment was removed and discharged directly into a 55-gallon drum. A glass jar was used to capture a sample of the purge water to monitor the improving clarity of the purge water. Bailing ceased once the purge water was relatively clear.

Fluid Level Measurements

The depth to separate phase hydrocarbon, if present, and groundwater was measured prior to purging the wells of potentially stagnant groundwater. The measurements are presented in Table 12. A Geotech Interface Probe was used to measure fluid levels to 0.01 foot.

Purging of Monitoring Wells/Groundwater Sample Collection

The permanent monitoring well (OAPIS-1) was purged of a minimum of three well volumes prior to sample collection. The purge volumes are calculated as follows:

Volume (gallons) = water column thickness (ft) x 3.14 x radius of well casing^2 (ft) x 7.48 (gals/ft). The calculated purge volumes and actual volumes removed from each well are presented below.

Well (date)	Water Column Thickness (ft)	Calculated Purge Volume (gallons) – 3 Well Volumes	Actual Purge Volume (gallons)
OAPIS-1 (10/15/2012)	17.95	9.15	9.25

Field measurements of groundwater stabilization parameters included pH, specific conductance, dissolved oxygen concentrations, oxidation-reduction potential, and temperature. These measurements are presented in Table 11. A disposable bailer was used to remove groundwater from the well during the purging procedures.

Sample Collection and Handling Procedures

Soil samples were collected using split-spoon samplers or directly from the auger bucket for borings completed with a hand auger. The selected portion of the sample interval was placed in pre-cleaned, laboratory-prepared sample containers for laboratory chemical analysis. Three soil samples were collected for VOC analysis. An Encore® Sampler was used for collection of soil samples for low-level VOC analysis pursuant to EPA method 5035; the second sample aliquot (approximately 1 gram) was placed in a laboratory-prepared container with a methanol preservative; and the third sample aliquot was placed in an 8-ounce glass jar, which was filled to the top to minimize any head space.

Groundwater samples were collected with disposable bailers and immediately poured directly into clean laboratory supplied sample containers with the exception of samples collected for dissolved analyses. Samples specified for dissolved analyses were filtered in the field using a disposable 0.45 micron filter. A new filter and syringe enclosure were used for each sample. All samples were immediately placed into an ice chest with ice. The samples were maintained in the custody of the sampler until the chain-of-custody form was completed and the ice chest was sealed for shipment to the laboratory.

Equipment Calibration

Soil vapor screening was conducted using a MiniRae 2000 portable VOC monitor. The instrument was calibrated at the beginning of each work day to a concentration of 100 ppm isobutylene.

The instruments used to measured groundwater stabilization parameters included a YSI 650 MDS Data Logger and YSI 600 XLM-M Sonde. The calibration solutions used at the beginning of each day are as follows:

- 4.0 pH solution;
- 7.0 pH solution; and
- 1.413 mS/cm conductivity solution.

Management of Investigation Derived Waste

The decontamination water from the drilling equipment was collected on a mobile decon trailer and was subsequently placed in open top 55-gallon drums, which were sealed at the end of each work day. The decontamination water generated from sampling equipment was collected in buckets and placed in open top 55-gallon drums, which were sealed at the end of each work day. Purge water was also collected in a 55-gallon drum. The decon and purge water was disposed in the Refinery's wastewater treatment system up-stream of the API Separator. Soil cuttings were also placed into open top 55-gallon drums and were sealed when not in use. Each drum of soils was labeled and temporarily stored in a concrete curbed area pending waste characterization and disposal.

Appendix C

Site-Specific Dilution/Attenuation Factor Calculations

Calculation of Site-Specific Dilution/Attenuation Factor (DAF)

The DAF value was calculated using equation 33 from NMED's *Risk Assessment Guidance for Site Investigations and Remediation (February, 2012).*

$$DAF = 1 + \left(\frac{K * i * D}{I * L} \right) \qquad DAF = 1 + \left(\frac{38.96 * 0.027 * 10.58}{0.000242 * 100} \right) = 461$$

Where:

$$D = \left(0.0112 * L^2\right)^{0.5} + D_a \left(1 - \exp\left[\frac{-L * I}{K * i * D_a} \right] \right)$$

$$D = \left(0.0112 * 100^2\right)^{0.5} + 12.5 \left(1 - \exp\left[\frac{-100 * 0.000242}{38.96 * 0.027 * 12.5} \right] \right) = 10.58 \text{ m}$$

K = Aquifer hydraulic conductivity (m/yr)
i = Hydraulic gradient (m/m)
D = Mixing zone depth (m)
I = Infiltration rate (m/yr)
L= Source length parallel to ground water flow (m)
D_a= Aquifer thickness (m)

Derivation of site-specific values:

K = 38.96 m/yr as determined from a slug test at well MW-1(completed in Sonsela Sandstone aquifer) and originally presented in Appendix C of the Discharge Plan Application for Giant Refining Company, Ciniza Refinery, dated November 21, 1985.

i = 0.027 m/m as measured during Fall 2010 ground water sampling event (potentiometric surface map of Sonsela aquifer attached)

D = 10.58 m [lower of aquifer thickness (12.5 m measured at nearest well that penetrates Sonsela aquifer – OW-12) or calculated mixing zone depth (10.58m)]

I = 0.000242 m/yr derivation using EPA's HELP model as described below

L = 100 m – conservative source area length measured across Aeration Basin and surrounding soils with potential impact

D_a= 12.5 m - saturated thickness measured at nearest well that penetrates Sonsela aquifer – OW-12during August 2008 ground water sampling event

Calculation of Infiltration Rate

Pursuant to *EPA's Soil Screening Guidance: User's Guide (Second Edition, July 1996)*, infiltration rates can be calculated either of two ways: (1) assume that infiltration rate is

equivalent to recharge, or (2) use the EPA HELP model to estimate infiltration. Because the Gallup site is located in an area with low annual rainfall rates and high potential evapotranspiration rates, method 1 is not representative of site conditions. That is to say that it is unreasonable to assume that infiltration is equal to recharge.

EPA's HELP model was used to calculate the site-specific infiltration rate. Site-specific meteorological data was obtained from the Western Regional Climate Center and New Mexico State University, which operates a nearby weather station (Thoreau 5 ENE) as part of the NWS Cooperator Climate Stations. The weather station is located east northeast of Thoreau, New Mexico on HWY 371 and is approximately 16 miles south southeast of the Gallup Refinery.

Data obtained from the Thoreau 5 ENE station includes mean monthly temperature and average monthly precipitation. The average wind speed (11.3 km/hr) was obtained from the Western Regional Climate Center, as measured at the Gallup, NM airport. Daily solar radiation and quarterly relative humidity values were based on measurements from Albuquerque, NM. This data was obtained from the National Oceanic and Atmospheric Administration (NOAA) and is included in the HELP model's Weather Generator module. A review of the monthly average weather conditions (temperature and precipitation) at Gallup and Albuquerque as shown in the table below indicates very similar conditions such that use of quarterly relative humidity and solar radiation from Albuquerque should be sufficient to estimate conditions at the Western Refining Gallup Refinery. The quarterly relative humidity values used are 48%, 30%, 45%, and 50% for the first, second, third, and fourth quarters, respectively.

The HELP model soil profile was constructed with two layers. The Sonsela Aquifer is considered to be the uppermost aquifer in the area (reference the May 2000 RCRA Post-Closure Care Part B Permit Application). The upper layer (Layer 1.1) represents the unconsolidated deposits that overlie the Chinle Formation bedrock. Based on the soil borings logs that surround the Aeration Basin and Old API Separator, the predominant lithology in this upper layer is silty clay and clay, with lesser amounts of sandy clay. There are relatively thin (several feet thick) discontinuous layers of clayey sand and sand. The soil type chosen in the model was loam with an average thickness of 10 meters. Loam would normally be expected contain a higher percentage of silt and sand than observed in the most of the soil borings and is considered to be a conservative estimate of actual field conditions.

The land surface was assumed to have a poor stand of grass, which is more conservative than the other possible option of bare soil. The slope of the land surface was calculated to be 7.7 % based on surveyed elevations a short distance to the east of west of the Aeration Basin. There are structures (e.g., parking lots, building pads, concrete foundations, etc.) that could limit infiltration but the model assumes only soil without any obstructions to infiltration. Based on the selected soil type (loam) the model default value for porosity is 0.463, field capacity is 0.232, wilting point is 0.116, and saturated hydraulic conductivity is 3.7E-4 cm/sec. These model default vales are taken from the US Department of Agriculture. Soil permeability tests conducted on soil samples collected beneath the nearby Land Treatment Unit indicated a permeability of 1.9E-5 cm/sec, thus the model default hydraulic conductivity of 3.7E-4 cm/sec is a conservative estimate (see attached page 2 of Appendix C from RCRA Post-Closure Care Permit Application).

The second layer (Layer 1.2) in the model represents the upper portion of the Chinle Formation, which overlies the Sonsela Aquifer. This upper portion of the Chinle Formation consists of mudstone/sandstone. The default soil type from the HELP model chosen to represent the upper Chinle Formation was silty loam. The model default value for porosity is 0.35, field capacity is 0.284, and wilting point is 0.135. However, a site-specific hydraulic conductivity was chosen to be more representative of actual site conditions. Yield tests, including slug tests and pumping tests have been performed at the refinery to estimate the hydraulic conductivity of the upper portion of the Chinle Formation (see attached documentation). A slug test performed on July 3, 1984 in well OW-4 indicated a hydraulic conductivity of 4.0E-7 cm/sec. A pump test was performed in well OW-24 on February 20, 1985 and it yielded a hydraulic conductivity of 2.5E-7 cm/sec. The higher of these two conductivity values (4.0E-7 cm/sec) was utilized as a site-specific hydraulic conductivity for the lower layer (i.e., Chinle Formation – mudstone/sandstone).

Using the model's synthetic weather generator and the aforementioned inputs, the model was run for a 40 year period to simulate potential infiltration (percolation or leakage through Layers 1.1 and 1.2). The model output is enclosed, showing the annual values. Over the modeled 40 year period, the average annual infiltration was 0.000242 meters/year. This average annual infiltration was used in the aforementioned calculation of the site-specific DAF value.

Project : Western Refining Gallup Refinery

Infiltration calculations

Model : HELP

An US EPA model for predicting landfill hydrologic processes and testing of effectiveness of landfill designs

Author : Your title Scott Crouch

Client : Title Ed Riege

Location : Albuquerque

1/15/2013

1. Profile. EPA profile1

Model Settings

[HELP] Case Settings

Parameter	Value	Units
Runoff Method	Model calculated	(-)
Initial Moisture Settings	Model calculated	(-)

[HELP] Surface Water Settings

Parameter	Value	Units
Runoff Area	100	(%%)
Vegetation Class	Poor stand of grass	(-)

Profile Structure

Layer	Top (m)	Bottom (m)	Thickness (m)
Loam	0.0000	-10.0000	10.0000
Chinle Formation - Mudstone/sandstone	-10.0000	-30.0000	20.0000

1.1. Layer. Loam

Top Slope Length: 300.0000
Bottom Slope Length: 300.0000
Top Slope: 7.7000
Bottom Slope : 7.7000

[HELP] Vertical Perc. Layer Parameters

Parameter	Value	Units
total porosity	0.463	(vol/vol)
field capacity	0.232	(vol/vol)
wilting point	0.116	(vol/vol)
sat.hydr.conductivity	3.7E-4	(cm/sec)
subsurface inflow	0	(mm/year)

1.2. Layer. Chinle Formation - Mudstone/sandstone

Top Slope Length: 300.0000
Bottom Slope Length: 30.0000
Top Slope: 7.7000
Bottom Slope : 7.7000

[HELP] Vertical Perc. Layer Parameters

Parameter	Value	Units
total porosity	0.35	(vol/vol)
field capacity	0.284	(vol/vol)
wilting point	0.135	(vol/vol)
sat.hydr.conductivity	4E-7	(cm/sec)
subsurface inflow	0	(mm/year)

Annual Totals rate (m)

	Precipitation (m)	Runoff (m)	Evapotranspiration (m)	Percolation or leakance through Layer 2 (m)
Year-1 (m)	1.9660E-01	0.0000E+00	1.9535E-01	1.3879E-05
Year-2 (m)	3.0150E-01	1.0001E-03	3.0471E-01	3.1513E-04
Year-3 (m)	2.3571E-01	0.0000E+00	2.4077E-01	2.0281E-03
Year-4 (m)	2.3012E-01	1.5981E-03	2.3584E-01	5.5298E-05
Year-5 (m)	2.5273E-01	0.0000E+00	2.4342E-01	3.3999E-05
Year-6 (m)	1.5875E-01	0.0000E+00	1.4979E-01	1.2773E-05
Year-7 (m)	1.8390E-01	0.0000E+00	1.8163E-01	0.0000E+00
Year-8 (m)	2.5781E-01	2.9505E-07	2.4741E-01	3.0084E-05
Year-9 (m)	1.9152E-01	3.7197E-04	2.1155E-01	1.8727E-05
Year-10 (m)	2.2708E-01	1.0422E-03	2.1507E-01	6.2184E-05
Year-11 (m)	2.3673E-01	1.2339E-03	2.5338E-01	6.6487E-03
Year-12 (m)	2.5883E-01	9.3579E-07	2.3932E-01	0.0000E+00
Year-13 (m)	1.8466E-01	9.3962E-09	2.0131E-01	2.6008E-05
Year-14 (m)	1.5875E-01	0.0000E+00	1.5152E-01	0.0000E+00
Year-15 (m)	2.4892E-01	0.0000E+00	2.5657E-01	1.2845E-05
Year-16 (m)	1.6688E-01	0.0000E+00	1.5475E-01	0.0000E+00
Year-17 (m)	1.2929E-01	0.0000E+00	1.1804E-01	0.0000E+00
Year-18 (m)	1.4961E-01	0.0000E+00	1.6469E-01	4.1083E-05
Year-19 (m)	2.0447E-01	0.0000E+00	1.9000E-01	0.0000E+00
Year-20 (m)	1.8110E-01	1.6632E-04	1.9096E-01	1.2713E-05
Year-21 (m)	2.3622E-01	0.0000E+00	2.3463E-01	1.3324E-05
Year-22 (m)	1.3665E-01	0.0000E+00	1.4617E-01	0.0000E+00
Year-23 (m)	2.3317E-01	3.4029E-03	2.2879E-01	0.0000E+00
Year-24 (m)	2.2098E-01	0.0000E+00	2.2620E-01	2.3928E-05
Year-25 (m)	1.4478E-01	0.0000E+00	1.3168E-01	0.0000E+00
Year-26 (m)	2.0041E-01	1.0938E-03	1.8008E-01	1.8989E-05
Year-27 (m)	2.3216E-01	0.0000E+00	2.3529E-01	2.4520E-05
Year-28 (m)	1.9228E-01	0.0000E+00	2.0836E-01	0.0000E+00
Year-29 (m)	2.3343E-01	0.0000E+00	2.3747E-01	2.3204E-05
Year-30 (m)	1.8898E-01	0.0000E+00	1.9221E-01	0.0000E+00
Year-31 (m)	2.4536E-01	7.1872E-05	2.3620E-01	0.0000E+00
Year-32 (m)	2.2682E-01	0.0000E+00	2.2482E-01	4.1874E-05
Year-33 (m)	3.1648E-01	4.4010E-03	3.1326E-01	4.8895E-05
Year-34 (m)	2.1107E-01	0.0000E+00	1.9883E-01	0.0000E+00
Year-35 (m)	2.7432E-01	4.5785E-04	2.8167E-01	1.3746E-05
Year-36 (m)	1.5113E-01	0.0000E+00	1.3259E-01	0.0000E+00
Year-37 (m)	2.1692E-01	8.4320E-05	2.5279E-01	2.7002E-05
Year-38 (m)	1.7450E-01	0.0000E+00	1.6655E-01	0.0000E+00
Year-39 (m)	2.1057E-01	9.4687E-04	1.8508E-01	9.8535E-05
Year-40 (m)	1.7501E-01	0.0000E+00	1.9865E-01	3.7743E-05
Total (m)	8.3762E+00	1.5873E-02	8.3574E+00	9.6833E-03

$\frac{9.6833E-03\ m}{40\ yr} = 0.000242\ m/yr$

ALBUQUERQUE WSFO AIRPOR, NEW MEXICO (290234)

Period of Record Monthly Climate Summary

Period of Record : 1/ 1/1914 to 12/31/2005

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	47.2	53.2	60.6	70.0	79.4	89.3	91.7	88.9	82.4	71.0	56.9	47.7	69.9
Average Min. Temperature (F)	23.4	27.8	33.0	40.8	50.1	59.2	64.6	62.9	56.0	44.0	31.4	24.4	43.1
Average Total Precipitation (in.)	0.37	0.40	0.52	0.54	0.63	0.61	1.38	1.46	0.96	0.88	0.46	0.46	8.67
Average Total SnowFall (in.)	2.3	1.8	1.6	0.6	0.0	0.0	0.0	0.0	0.0	0.1	1.0	2.2	9.6
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.
Max. Temp.: 91.2% Min. Temp.: 91.2% Precipitation: 96.6% Snowfall: 80.1% Snow Depth: 80.1%
Check Station Metadata or Metadata graphics for more detail about data completeness.

THOREAU 5 ENE, NEW MEXICO (298830)

Period of Record Monthly Climate Summary

Period of Record : 1/ 1/1930 to 11/30/1992

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	43.2	47.9	54.5	63.8	72.6	83.1	85.5	82.3	76.6	66.8	53.4	44.9	64.5
Average Min. Temperature (F)	18.6	21.9	26.5	32.3	40.7	49.8	55.8	53.8	47.4	37.2	26.5	19.8	35.9
Average Total Precipitation (in.)	0.64	0.61	0.68	0.45	0.58	0.56	1.72	2.16	1.19	0.88	0.59	0.65	10.71
Average Total SnowFall (in.)	8.3	5.6	5.3	1.1	0.4	0.0	0.0	0.0	0.0	1.4	3.1	8.1	33.3
Average Snow Depth (in.)	1	0	0	0	0	0	0	0	0	0	0	1	0

Percent of possible observations for period of record.
Max. Temp.: 46.1% Min. Temp.: 46.1% Precipitation: 68.4% Snowfall: 61.8% Snow Depth: 61.8%
Check Station Metadata or Metadata graphics for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

THOREAU 5 ENE, NEW MEXICO

Station Metadata

From NCDC Station Historical Listing for NWS Cooperative Network
ObsTyp: t-Temperature-1, p-Daily precip-2, w-(blank), s-(blank), e-Evap-5
h-Hourly precip - 6 0.01" Universal, or - 7 0.10" Fisher-Porter
U - Observed, but beginning date is uncertain

Count	Number (Coop)	Station Name (From NCDC listing)	Lat ddmm	Long dddmm	Elev ftx10	Start yy mm	t	p	w	s	e	h	End yy mm
1050	298830-4	THOREAU 6 ENE	3526	10808	0713	53 09	U	U					63 01
1051	298830-4	THOREAU 6 ENE	3526	10809	0711	63 01	U	U					88 04
1052	298830-4	THOREAU 5 ENE	3526	10809	0710	88 04	1	2				7	99 99

Statistics by element

(From WRCC data archives)
Last Compiled on Apr.23, 2009.
Dates are format of YYYYMMDD. Numbers are total Number of observations

STATION	START	END	PRECP	SNWFL	SNWDP	TMAX	TMIN	TOBS	EVAP	WNDM
298830	19300101	19921130	15723	14204	14192	10584	10584	10580	0	0

STATION - NCDC COOP Station number
START - First Date in record
END - Last Date in record (when last compiled)
PRECP - Precipitation
SNWFL - Snowfall
SNWDP - Snow depth
TMAX - Daily Max. Temperature
TMIN - Daily Min. Temperature
TOBS - Temperature at Observation time
EVAP - Evaporation
WNDMV - Wind Movement

Statistics by observation

(From WRCC data archives)
Last Compiled on Apr.23, 2009.
Dates are format of YYYYMMDD. Numbers represent one day and one day is considered present if

Average Wind Speeds - MPH

Average wind speeds are based on the hourly data from 1996-2006 from automated stations at reporting airports (ASOS) unless otherwise noted.

For more information click here on Western States, Alaska or Hawaii and Pacific Islands

Arizona California Colorado Hawaii Idaho Montana Nevada New Mexico Oregon Utah Washington Wyoming

MONTANA

AVERAGE WIND SPEED - MPH

STATION	ID	Years	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
BAKER AIRPORT ASOS	KBHK	1998-2006	10.4	10.5	12.2	12.5	12.7	11.7	10.7	10.8	10.0	10.3	10.5	10.7	11.1
BILLINGS-LOGAN AP ASOS	KBIL	1996-2006	12.8	12.2	11.0	10.5	10.4	10.0	9.3	9.2	9.6	10.3	12.0	13.0	10.9
BOZEMAN AIRPORT ASOS	KBZN	1996-2006	4.6	5.3	6.4	7.2	7.0	6.3	6.3	6.4	6.1	5.7	4.9	4.8	5.9
BUTTE AIRPORT ASOS	KBTM	1996-2006	4.7	5.0	6.8	7.3	7.7	7.3	6.9	6.6	6.2	6.2	5.2	4.9	6.2
CUT BANK AIRPORT ASOS	KCTB	1996-2006	14.6	12.8	13.3	12.8	13.4	12.3	11.2	10.2	11.4	13.0	13.6	14.6	12.8
DILLON AIRPORT ASOS	KDLN	1997-2006	10.2	9.7	10.3	10.0	9.6	8.4	8.0	8.0	8.7	9.0	9.3	9.2	9.2
GLASGOW AIRPORT ASOS	KGGW	1996-2006	9.3	9.3	11.7	12.4	12.6	11.4	10.7	11.0	10.5	10.3	9.3	9.4	10.6
GLENDIVE AIRPORT AWOS	KGDV	1996-2006	9.5	9.7	10.5	11.3	11.6	10.4	9.4	9.6	9.6	10.1	9.7	10.2	10.1
GREAT FALLS AP ASOS	KGTF	1996-2006	13.3	12.3	11.8	11.2	11.3	10.2	9.6	9.2	10.4	11.9	13.2	13.8	11.5
GREAT FALLS-MALSTROM AF	KGFA	1996-2006	12.3	9.9	11.9	10.7	10.3	9.7	9.1	8.8	9.9	10.4	13.2	13.2	10.9
HAVRE AIRPORT ASOS	KHVR	1996-2006	9.9	9.6	10.7	11.0	11.6	10.6	9.8	9.5	9.8	9.8	10.6	11.0	10.3
HELENA AIRPORT ASOS	KHLN	1996-2006	5.8	6.3	7.8	8.3	8.4	8.2	7.4	6.6	6.7	6.6	5.8	6.0	7.0
JORDAN AIRPORT ASOS	KJDN	1996-2006	7.3	7.9	9.3	10.0	10.5	9.7	8.4	8.4	8.2	8.2	7.9	8.1	8.6
KALISPELL AIRPORT ASOS	KGPI	1996-2006	4.1	3.8	6.0	6.7	6.6	5.7	5.2	5.0	4.6	4.2	4.0	3.2	4.9
LEWISTOWN AIRPORT ASOS	KLWT	1996-2006	10.6	9.5	10.2	9.8	9.9	9.0	7.9	8.0	8.5	9.2	10.2	10.7	9.5
LIVINGSTON AIRPORT ASOS	KLVM	1996-2006	19.8	17.4	16.2	14.0	13.1	11.9	11.0	11.2	12.7	14.6	18.4	20.4	15.2
MILES CITY AP ASOS	KMLS	1996-2006	8.8	9.4	10.6	11.2	11.3	10.5	9.9	9.7	9.7	9.7	9.3	9.3	9.9
MISSOULA AIRPORT ASOS	KMSO	1996-2006	3.2	3.7	5.4	6.1	6.0	6.1	5.7	5.2	4.3	3.9	3.5	3.7	4.7
SIDNEY AIRPORT AWOS	KSDY	1996-2006	8.9	9.0	9.5	10.2	10.4	9.0	7.7	7.9	8.2	8.8	8.7	9.4	9.0
WOLF POINT AIRPORT ASOS	KOLF	1998-2006	7.1	7.6	9.4	10.3	10.4	8.9	8.2	8.3	7.6	7.7	7.3	7.6	8.3

NEW MEXICO

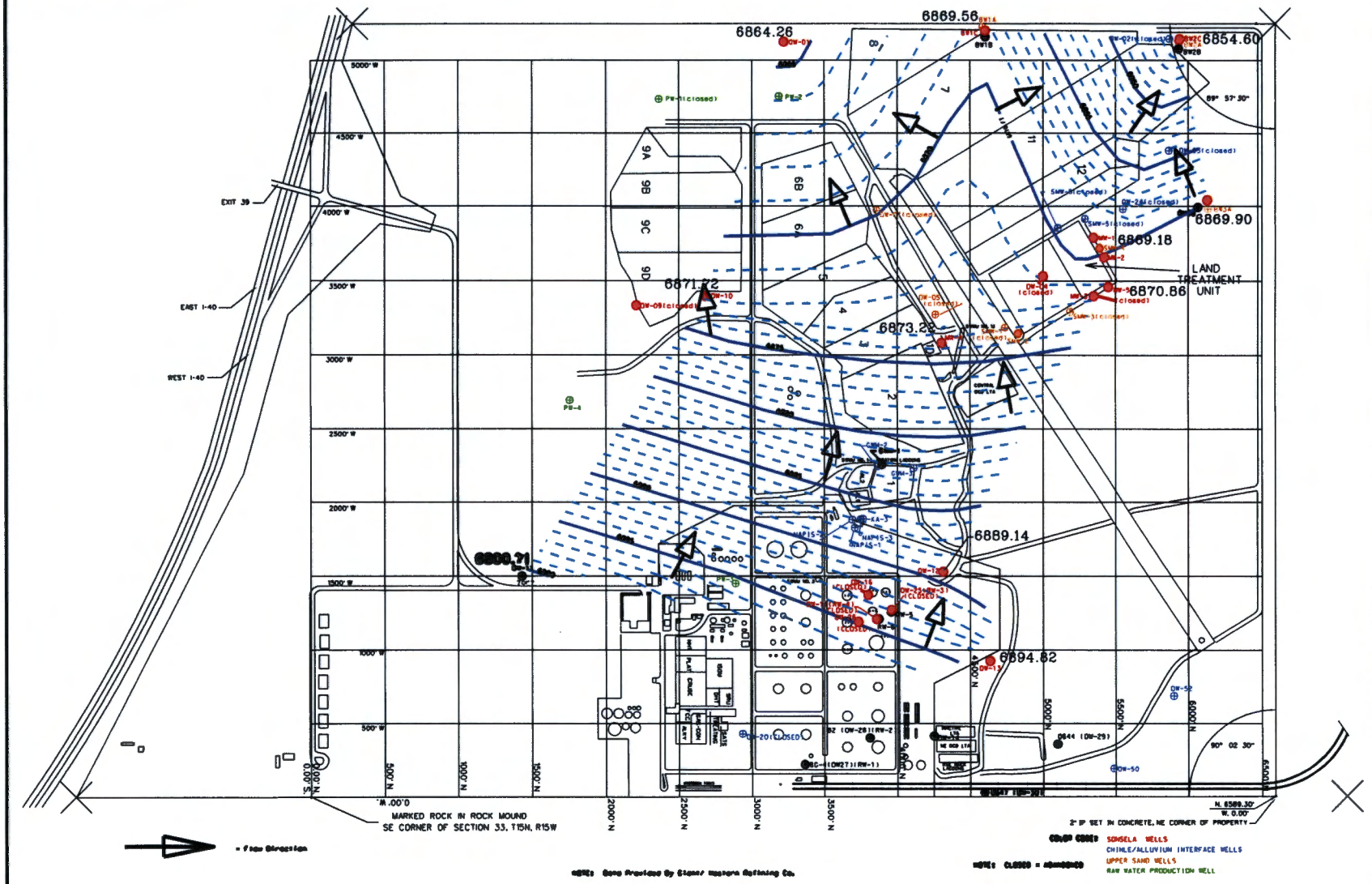
7.0 miles/hr × 1 kilo. / .62 miles = 11.3 K/hr

AVERAGE WIND SPEED - MPH

STATION	ID	Years	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
ALAMOGORDO AIRPORT ASOS	KALM	1996-2006	5.1	6.3	7.1	7.9	7.1	6.9	6.1	5.3	5.2	5.2	5.0	5.0	6.0
ALAMOGORDO-HOLLOMAN AFB	KHMN	1996-2006	8.5	9.7	10.6	11.8	10.8	10.6	9.8	9.1	8.8	8.5	8.1	8.3	9.6
ALBUQUERQUE AP ASOS	KABQ	1996-2006	7.0	8.2	9.3	11.1	10.0	10.0	8.7	8.3	8.0	7.9	7.2	6.9	8.5
ALBUQUERQUE-DBLE EAGLE	KAEG	1999-2006	7.1	7.9	9.0	10.6	9.5	8.6	7.0	6.2	7.0	6.5	6.5	6.1	7.7
ARTESIA AIRPORT ASOS	KATS	1997-2006	7.8	9.1	10.1	10.9	10.2	9.9	7.8	6.9	7.6	7.8	7.6	7.4	8.5
CARLSBAD AIRPORT ASOS	KCNM	1996-2006	9.2	9.8	10.9	11.4	10.4	9.9	8.5	7.7	8.2	8.5	8.4	8.8	9.3
CLAYTON MUNI AP ASOS	KCAO	1996-2006	11.9	12.7	13.4	14.6	13.4	13.0	11.7	10.8	11.8	12.1	12.1	12.0	12.4
CLINES CORNERS	KCQC	1998-2006	16.2	16.1	15.7	16.9	14.6	13.5	10.6	10.1	11.8	13.3	15.0	16.0	14.1
CLOVIS AIRPORT AWOS	KCVN	1996-2006	12.3	12.3	13.4	13.8	12.4	11.9	9.7	8.9	9.7	10.9	11.6	12.2	11.6
CLOVIS-CANNON AFB	KCVS	1996-2006	12.5	12.6	13.6	13.8	12.2	12.5	10.7	10.0	10.2	11.3	11.7	12.4	12.0
DEMING AIRPORT ASOS	KDMN	1996-2006	8.7	9.7	10.9	12.0	10.6	10.1	8.9	8.1	8.4	8.2	8.5	8.1	9.3
FARMINGTON AIRPORT ASOS	KFMN	1996-2006	7.3	8.3	9.0	9.8	9.4	9.4	8.7	8.2	8.0	7.8	7.6	7.3	8.4
GALLUP AIRPORT ASOS	KGUP	1996-2006	5.7	6.9	7.8	10.0	9.0	8.8	6.9	6.0	6.5	6.1	5.6	5.3	7.0
GRANTS-MILAN AP ASOS	KGNT	1997-2006	7.8	8.8	9.6	10.9	10.0	9.8	8.1	7.2	7.9	8.4	8.0	7.6	8.7
HOBBS AIRPORT AWOS	KHOB	1996-2006	11.3	11.9	12.6	13.4	12.5	12.3	11.0	10.0	10.2	10.6	10.7	11.1	11.4
LAS CRUCES AIRPORT AWOS	KLRU	2000-2006	6.4	7.5	8.8	10.1	8.7	8.2	6.8	6.0	6.2	6.1	6.4	6.0	7.3
LAS VEGAS AIRPORT ASOS	KLVS	1996-2006	10.9	12.2	12.5	14.3	12.4	11.8	10.0	9.2	10.9	10.8	11.0	10.9	11.4
LOS ALAMOS AP AWOS	KLAM	2005-2006	3.9	5.7	7.5	8.1	7.1	7.3	5.3	4.8	5.7	5.1	4.4	3.2	5.4
RATON AIRPORT ASOS	KRTN	1998-2006	8.9	9.4	10.4	12.2	10.8	10.2	8.4	8.1	8.6	9.0	8.6	8.5	9.4
ROSWELL AIRPORT ASOS	KROW	1996-2006	7.4	8.9	9.9	11.1	10.3	10.2	8.8	7.9	8.3	8.0	7.5	7.3	8.8
RUIDOSO AIRPORT AWOS	KSRR	1996-2006	8.8	9.6	10.0	11.6	10.0	8.4	5.9	5.3	6.4	7.4	7.9	8.7	8.3
SANTA FE AIRPORT ASOS	KSAF	1996-2006	8.9	9.5	9.9	11.2	10.6	10.5	9.2	8.8	8.8	9.1	8.7	8.5	9.5
SILVER CITY AP AWOS	KSVC	1999-2006	8.1	8.7	9.9	10.8	10.2	9.9	8.5	7.2	6.9	7.6	7.9	7.7	8.5
TAOS AIRPORT AWOS	KSKX	1996-2006	5.8	6.5	7.7	9.1	8.6	8.5	7.1	6.6	6.7	6.6	6.0	5.7	7.0
TRUTH OR CONSEQ AP ASOS	KTCS	1996-2006	7.4	8.7	9.9	11.1	10.4	9.8	8.1	7.4	7.7	8.0	7.7	7.3	8.6
TUCUMCARI AIRPORT ASOS	KTCC	1999-2006	10.0	11.2	11.9	13.6	11.9	11.6	9.9	9.3	10.0	10.0	10.4	10.2	10.8

SONSELA POTENTIOMETRIC SURFACE MAP
WESTERN REFINING COMPANY
GALLUP REFINERY

Fall 2012



Peregrine GeoConnect, Inc.

1" = 500'

File 11-002

Figure 9
Sonsela Water
Piezometric Surface (July-Sept 2010)

Western Refining - Gallup Refinery
Interstate 40, Exit 39
Jamestown, New Mexico 87347

Date: March 28, 2010

APPENDIX C – DISCHARGE PLAN APPLICATION
GIANT REFINING COMPANY
CINIZA REFINERY

November 21, 1985

APPENDIX C
AQUIFER-TEST DATA AND ANALYSES

TEST PUMPING OF CHINLE SHALE

METHODOLOGY AND DESCRIPTION OF THE TEST

The test consisted of a 5 hour pumping period and a 2 hour recovery period. An air-driven piston pump capable of sustaining pumping rates as low as 10 gallons/hour (0.167 gpm) was used for the test. Water level measurments were taken with an electronic sounder. The well (OW-24) is located approximately 250 feet northwest of the land treatment facility and is completed within the Chinle shale. The lithologic and completion log of the well is attached (Figure F-2).

Pumping began at 1515 hours on February 20, 1985 at a rate of 10 gallons/hour. The produced water was very turbid. Clogging of the pump and pump lines necessitated continuous monitoring and adjustment of the discharge.

After 4 hours of pumping at 10 gallons/hour, the drawdown of the well appeared to stabilize at about 7 feet. The discharge rate was increased to 20 gallons/hour in order to more effectively stress the aquitard. After one hour of additional pumping a total drawdown of 12 feet was observed. However, this higher pumping rate increased the turbidity of the discharge and caused instability of the pumping rate. The lack of control of the discharge rate and the potential of diamage to the pump forced the termination of the test after a total of 5 hours of pumping.

Water level recovery was observed for 100 minutes. At this time the water level had recovered to within 90% of the pre-pumping level.

TABLE F-1

Pump Test Data, OW-24

PUMP TEST ANALYSIS

Field measurements are summarized in Table F-1. Due to the short pumping time and potential well-bore and gravel-pack effects, the final analysis was based on methods developed by Shafer, for low-conductivity materials.

Partial penetration effects were neglected in the analysis because the low pumping rates and the expected anisotropy of the aquitard would prevent significant vertical flow to the well bore. The low pumping rate was also designed to completely drain the gravel pack in the well to insure accurate recovery data.

A copy of Shafer's methodology is attached, and the data for his analysis is given in Table F-2. Figure F-1 is a plot of the recovery data, according to Shafer's methods. This Figure includes calculation of T and K for the Chinle shales.

TD = 58'-4" = 58.33'

DW = 31.96

Pump @ 55

26.37' of water

≈ 18 gal

PUMPING DATA

DATA SHEET FOR RECORDING PUMP TEST DATA

County: McKinley Co.

Location: Giant Refinery 2/22/85

Observation well no.

Pumped well no. OW-24

Average Q _____ gpm r = _____ ft. r^2 = _____

Date	Hour	t (min)	t' (min)	t/t'	Depth to water	s (unadjusted)	Adjustment As	s' (adjusted)	gph Q (gpm)	Remarks
2-20	1515	0			31'-11.5"	0"	Feet		10 gph	STATIC LEVEL w/ PUMP
	1516	1			33-0	12.5	1.04			LARGE INITIAL DRAW DOWN FROM HOSE FILL UP
	1517	2			33-1	13.5	1.13			Setting pump rate
	1518	3			33-4	16.5	1.38			
	1519	4			33-8¾	20.75	1.73			
	1520	5			33-11½	24.0	2.0'			
	1521	6			34-2	26.5	2.22			
	1522	7			34-2½	27.0	2.25			
1 min	1523	8			34-3	27.5	2.27			
	1524	9			34-4	28.5	2.37			
	1525	10			34-5	29.5	2.46			
	1527	12			34-6¾	30.75	2.56			
	1529	14			34-9	33.5	2.79			
	1531	16			35-0	36.5"	3.04			
2 min	1533	18			35-2½	39.75	3.23			
	1535	20			35-4½	41.0	3.42			
	1540	25			35-10½	47.0	3.92			
	1545	30			36-3	51.5	4.28			
	1550	35			36-2½	51.0	4.25			
	1555	40			36-8	56.5	4.71		10 gph	CLEARED PUMP Valve
5 min	1600	45			37-2¼	62.75	5.23			
	1605	50			36-14½	81.0	5.08			clear pump valve
	1610	55			NR					
	1615	60			37-10¼	~~88.75~~ 70.75	5.90			Pumped 10 gal
10 min	1625	70			38'-½	85.0	6.08			

PUMPING DATA

DATA SHEET FOR RECORDING PUMP TEST DATA

County: _____ Observation well no. MW-24

Location: Cimarex Refinery Pumped well no. MW-24

Average Q 10 gpm r = — ft. r^2 = —

Date	Hour	t (min)	t' (min)	t/t'	Depth to water	s'' (unadjusted)	Adjustment As	s' (adjusted)	Q gpm (approx)	Remarks
2-20	1635	0			39-3½	~~80.0~~ 78	6.33		10	
	1645	90			38-7-	~~91.5~~ 79.5	6.79			Lift pump to 50'
	1655	100			37-6½	69.0	5.75			clear pump, ready pressure
	1705	110			36-11½	~~94.0~~ 84.0	7.00			
2 hours	1715	120			39-2½		7.27			Pumped 20 gal
	1730	135			38-11		6.97			
15 min	1745	150			39-2½		7.25			
	1800	165			39-0½		7.08			
3 h	1815	180			39-2		7.21			Pumped 30 gal
	1830	195			39-5		7.46			
	1845	210			39-5		7.46			
	1900	225			39-2		7.21			
4 h	1915	240			38-11½		7.00			Pumped 40 gal
	1930	255			39-0		7.04		10	
	1932	257			39-4		7.38		20	INCREASE PUMP RATE TO 30 GPM
	1934	259			39-10		7.87			PUMP SLIPPED APPROX 1 FOOT - REPLACED TO APPROX SAME LEVEL
2 min	1936	261			40-3½		8.33			
	1938	263			40-3½		8.33			
	1940	265			40-1½		8.17			PUMPING RATE FELL-OFF SLIGHTLY
	1945	270			40-9		8.79			
	1950	275			41-9½		9.83			
5 min	1955	280			42-0		10.04			
	2000	285			41-8		9.72			
	2005	290			42-0½		9.75			
	2010	295			43-4		11.27			Silt in pump
15 min	2015	300			43-2½		11.25			Adj pump valve
5 h	2030	315			43-10½		11.92			pumped 10 gal

RECOVERY DATA

DATA SHEET FOR RECORDING PUMP TEST DATA

County: _____ Observation well no. _____

Location: Cissna Parking Pumped well no. Pw-24

Average Q _____ gpm r = _____ ft. r^2 = _____

Date	Hour	t (min)	t' (min)	t/t'	Depth to water	s (unadjusted)	Adjustment Δs	s' (adjusted)	Q (gpm)	Remarks
7/22	20:32		0		43-11½	144"	12.0'	0	20gpm	
	2034		2		42-7-		10.63'	1.37		
	2036		4		41-8¾		9.69	2.31		
2min	2038		6		40-8¼		8.86	3.14		
	2040		8		40-2		8.21	3.79		
	2042		10		39-6¼		7.56	4.44		
	2047		15		38-8¾		6.11	5.89		
	2052		20		37-1½		5.17	6.83		
	2057		25		36-4-		4.38	7.62		
	2102		30		35-8½		3.75	8.25		
	2107		35		35-2¼		3.27	8.73		
	2112		40		34-9¾		2.86	9.14		
5min	2117		45		34-5¾		2.52	9.48		
	2122		50		34-2¾		2.27	9.73		
	2127		55		34-0½		2.07	9.93		
	2132		60		33-10½		1.92	10.08		
	2142		70		33-7½		1.66	10.34		
10min	2152		80		33-5¾		1.51	10.49		
	2202		90		33-4½		1.42	10.58		
	2212		100		33-3¼		1.32	10.68		
	2222		110							
	2232		120							
15min	2247		135							
	2302		150							
	2317		165							

TABLE F-2

DATA FOR SHAFER'S METHOD

Time Since Pumping Started (min)	Drawdown (feet) (s)	Feet of Casing Filled (ft)	Time To Fill (min)	Q (gpm)	S/Q (ft/gpm)
317	12.0	0	0	---	-----
319	10.63	1.37	2	.45	23.8
321	9.69	.94	2	.31	31.6
323	8.86	.83	2	.27	32.7
325	8.21	.65	2	.21	38.7
327	7.56	.65	2	.21	35.6
332	6.11	1.45	5	.19	32.3
337	5.17	.94	5	.13	42.1
342	4.38	.79	5	.10	42.5
347	3.75	.63	5	.08	45.6
352	3.27	.48	5	.06	52.2
357	2.86	.41	5	.05	53.4
362	2.52	.34	5	.04	56.8
367	2.27	.25	5	.03	69.5
372	2.07	.20	5	.026	79.3
377	1.92	.15	5	.019	98.0
387	1.66	.26	10	.017	97.8
397	1.51	.15	10	.009	154
407	1.42	.15	10	.009	145
417	1.32	.10	10	.006	202

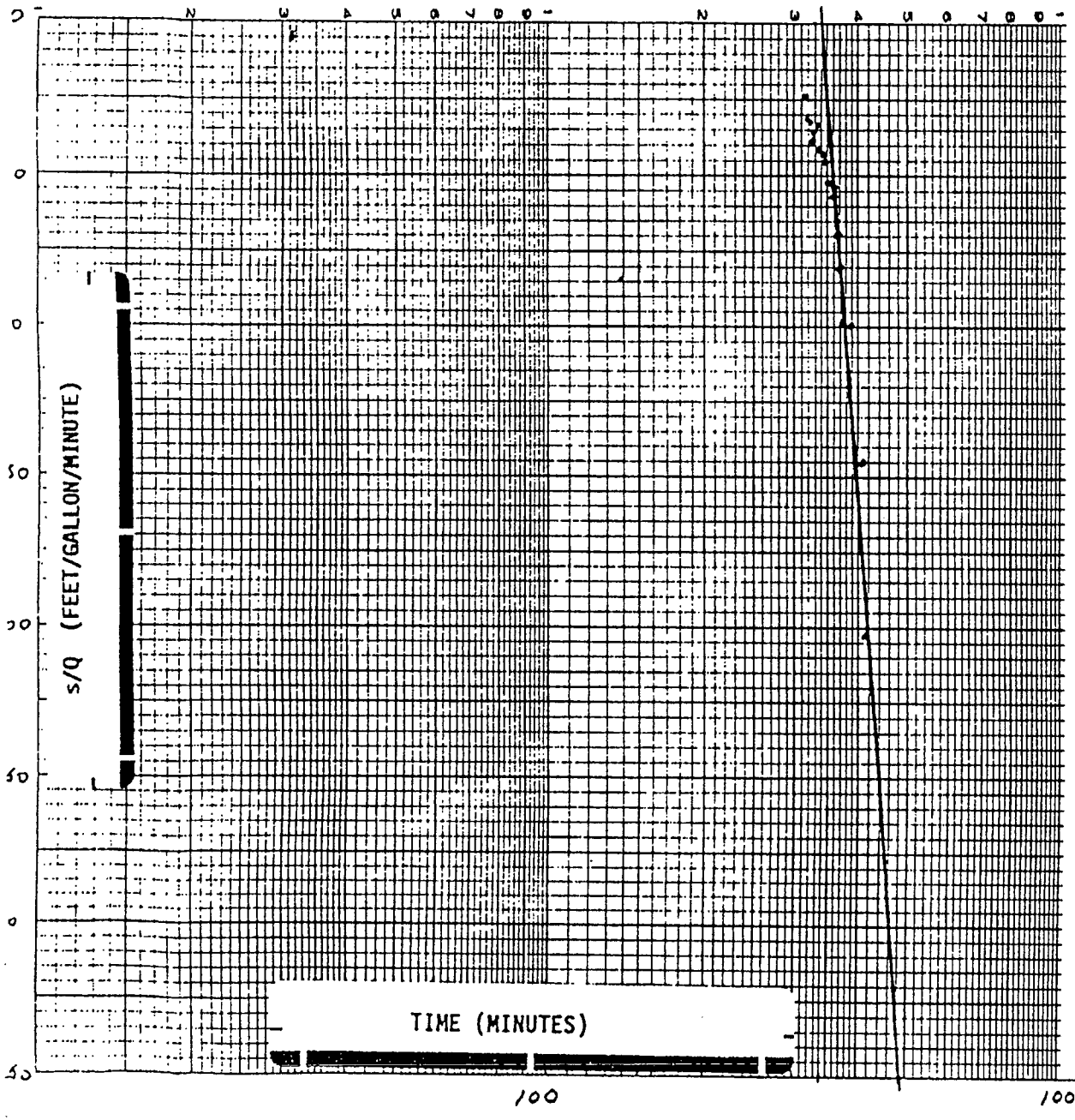


FIGURE F-1
SHAFER PLOT OF DATA FROM OW-24

Calculation of T & K

1) Over the total vertical scale of 350 feet/GPM, time varies by 0.1567 log cycles

2) For 1 full log cycle, s/Q equals 350/.1567 = 2233

3) T = 264/(s/Q) = 264/2233 or T = 0.110 gallons/day/foot

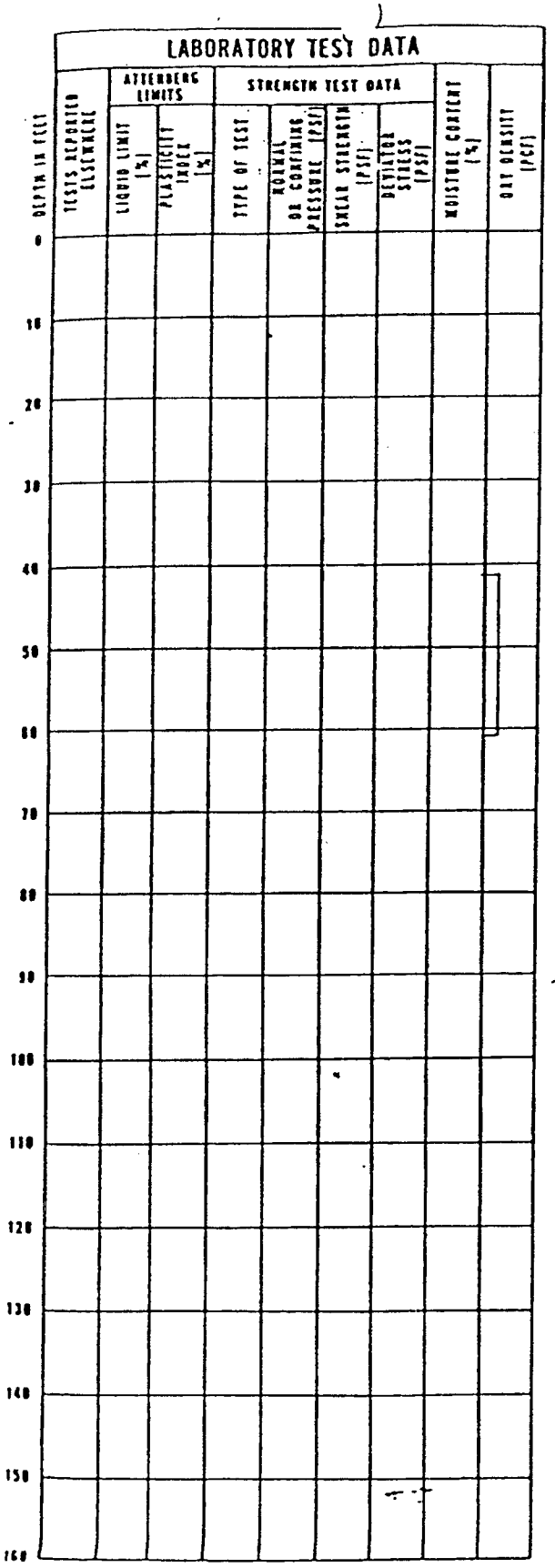
4) For a 20 foot screened interval K = T/b = 0.0055 gallons/day/square foot.

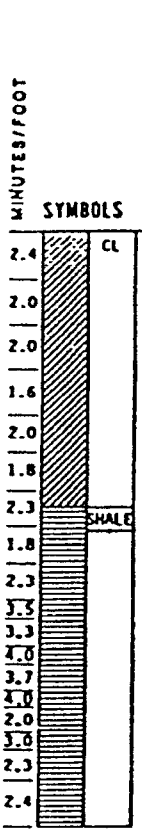
5) .0055 g/d/ft x 1.55×10^{-6} (ft/sec)/(g/d/ft)

   = 8.3×10^{-9} ft/sec

BO. .G OW-24

SURFACE ELEVATION: 6878 FEET





SYMBOLS

DESCRIPTION

CL

TRIASSIC PERIOD

CHINLE FORMATION

REDDISH BROWN, VERY FINE SANDY CLAY, SOFT, HIGHLY WEATHERED

SHALE

30 FEET: SHALE, REDDISH BROWN, SANDY, SOFT, FRESH

BORING COMPLETED AT 65.0 FEET ON 1/2/81.

4-INCH PVC PIEZOMETER INSTALLED WITH PERFORATIONS FROM 41.0 TO 61.0 FEET.

GRAVEL PLACED FROM 28.0 TO 61.0 FEET AND BORING SEALED WITH BENTONITE AND CEMENT TO SURFACE.

GROUND WATER LEVEL MEASURED AT 32.5 FEET BELOW GROUND ON 1/5/81.

FIGURE F-2

LOG OF WELL OW-24

LOG OF BORINGS

DAMES & MOORE

Pumping Test Analyses for Low Yield Formations

by David C. Shafer

William F. Achuff
Director

Occasionally it is necessary to determine aquifer characteristics of very low yielding formations—those with transmissivities less than 500 gallons per day per foot. Though interest in these aquifers is certainly not because of their productive capability, it may be desirable to determine groundwater flow characteristics even in these low yield formations in order to determine such things as regional groundwater flow patterns, effect of dewatering or migration of pollution plumes near point sources of contamination.

Different Approach

Conventional pumping test analysis using the standard time drawdown graph often does not work effectively in low T (transmissivity) formations for two reasons. First, the pumped well's low specific capacity (gallons per minute per foot of drawdown) may cause the pump to break suction during the test and it may be impractical to throttle back the pumping rate sufficiently to prevent this. Second, even if a constant pumping rate can be maintained without breaking suction, most of the data obtained will probably reflect casing storage effects rather than true aquifer parameters (see "Casing Storage Can Affect Pumping Test Data," Jan-Feb. 1978, Johnson Drillers Journal). Thus a different approach is required.

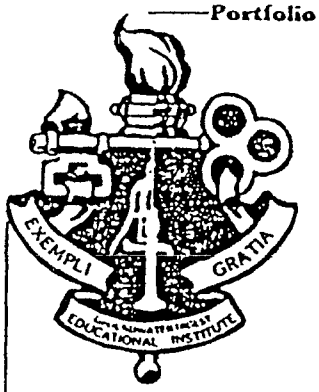
The best method for analyzing these formations is to pump a substantial portion of the casing empty, then shut the pump off and measure water levels as they recover. In ordinary pumping tests these measurements correspond to the non-pumping portion of the test. However, in the low T formations this "recovery period" is actually the "pumping period!"

After pump shut-off, the casing slowly begins filling with water. This water comes from the aquifer and actually represents the water pumped during this so called "pumping period." The pumping rate is determined by measuring the volume of

Pumping rate = 10 gpm
Pumping period = 15 minutes
Drawdown at pump shut off = 90 ft
Casing — 6" I.D.
Drop pipe — 1¼" I.D.

Time in minutes since pumping started (t)	Drawdown in feet (s)	Number of feet of casing filled	Time in minutes required to fill	Volume filled divided by time required in gallons per minute (Q)	s/Q in feet per gallon per minute
15 (pump shut off)	90				
17	85.66	4.34	2	3.04	28.2
20	79.7	5.96	3	2.78	28.6
30	64.2	15.5	10	2.17	29.5
40	51.9	12.3	10	1.72	30.2
60	35.6	13.3	20	1.14	31.1
80	24.6	11.0	20	.77	31.8

Table 1



casing filled in a given length of time.

During the test, careful measurements are made of time since pumping began (t) along with drawdown (s) at each of these times. Then a calculation is made to determine Q for each time t and finally the ratio s/Q is computed for each measured drawdown value. The ratio is simply the reciprocal of the specific capacity.

A graph is then constructed showing t versus the ratio s/Q plotted as usual on semi-logarithmic graph paper with t on the log scale. A straight line of best fit is drawn through the data points and T is calculated as follows:

$$T = \frac{264}{\Delta(s/Q)}$$

where $\Delta(s/Q)$ is the change in s/Q over one log cycle of graph paper.

This graph has the unique advantage that it will accurately reflect aquifer transmissivity independent of casing storage effects. In addition it will be sensitive to nearby recharge and/or negative boundaries and will reveal these conditions like any ordinary time drawdown graph.

To see how this technique works it is best to work an example. Table 1 shows data obtained from a 6-inch well pumped at 10 gpm for 15 minutes. Drawdown after 15 minutes of pumping measured 90 feet.

The next data point was recorded two minutes following pump shut-off or 17 minutes since pumping started. At this time the pumping water level was 85.66 feet, indicating that 4.34 feet of casing had filled during the two minute interval.

The annulus between the 6-inch casing and 1¼" drop pipe holds 1.4 gallons per foot so that the volume of casing filled is 1.4 times 4.34, or 6.08 gallons in two minutes. Thus,

$$Q = 6.08 \text{ gallons}/2 \text{ minutes} = 3.04 \text{ gpm}$$

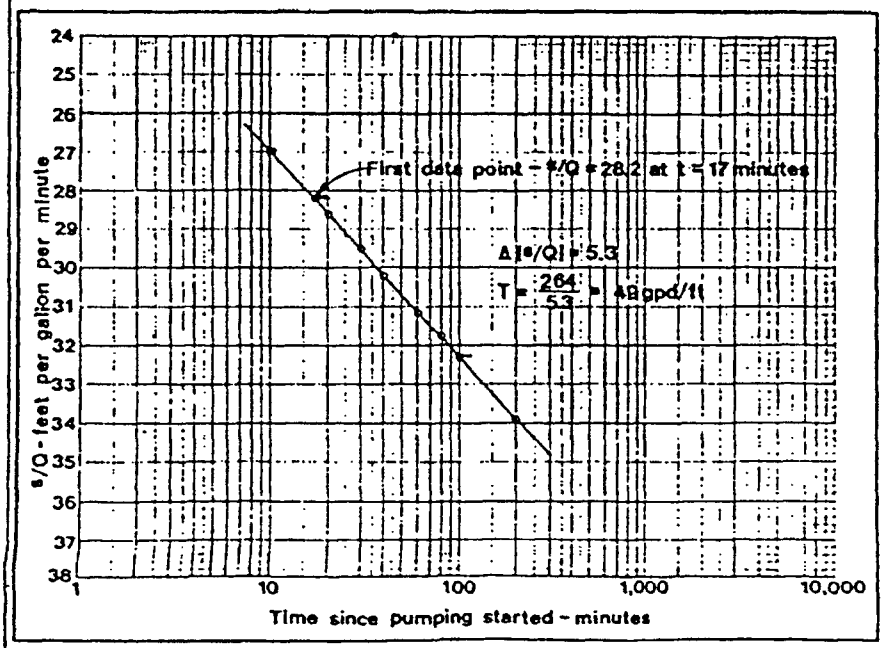
finally,

$$s/Q = 85.66 \text{ ft}/3.04 \text{ gpm} = 28.2 \text{ ft/gpm}$$

which is plotted at a time of 17 minutes on the graph shown here.

This analysis is repeated for each drawdown measurement. The resultant calculated s/Q values are shown in the table and plotted in the figure. The formation T value from the graph is

$$T = \frac{264}{\Delta(s/Q)} = 264/5.3 = 49 \text{ gpd/ft}$$



In low transmissivity situations, readings are taken after pump shut-off. In this method, s/Q is the reciprocal of the specific capacity and t is time, measured after shut-off as water begins to enter the casing.

Conventional Analysis

Examination of the hydraulic characteristics of this well (not included here) shows that if a conventional time drawdown graph had been used, casing storage effects would have lasted for approximately twelve hours. This means that data recorded in the first twelve hours of pumping would have been useless and longer pumping than this would have been required to obtain any usable data at all. However, data collected after twelve hours of pumping probably would be more influenced by boundary conditions than by aquifer transmissivity. Thus, in practice it actually might have been impossible to determine the T value using conventional analysis techniques regardless of the length of the test. The value of the method described above becomes very clear; it may be the only way to determine T values in certain low yielding aquifers.

In order to maximize the accuracy of this method, it is best to unload (empty) the casing as rapidly as possible. Thus it is actually better to use a high capacity pump than a low capacity pump in analyzing extremely low-yielding wells!

Another good idea is to unload the casing with compressed air since this can typically be done in one minute or less.

Recorded Data Must Be Accurate

An additional important consideration is that all data recorded for this type of analysis must be absolutely accurate. Small errors in the recorded values of time and/or drawdown can result in large errors in the calculated values of s/Q. For best results, drawdown should be recorded to the nearest hundredth of a foot and timed to the nearest second or two.

JOHN W. SHOMAKER
CONSULTING GEOLOGIST
3236 CANDELARIA, N.E.
ALBUQUERQUE, NEW MEXICO 87107

(505) 884-2897

RECEIVED SEP 24 1984

September 20, 1984

Carl D. Shook, Plant Manager
Giant Refining Company, Ciniza Refinery
Route 3, Box 7
Gallup, New Mexico 87301

Re: results of permeability tests, July 2 and 3, 1984

Dear Carl:

Copies of the field notes, calculations, and data plots for the two permeability tests are attached. The tests are summarized as follows:

Well OW-4 The well is completed principally in the clay and shale sequence which overlies the uppermost aquifer; a small thickness of sandstone which may be part of the uppermost aquifer was also penetrated. Total depth when drilled was 102.0 ft. Perforations are from 62.0 ft to 102 ft. The well is located near the center of the land-treatment area. A slug test was performed on July 3, 1984, following the method described by S. W. Lohman (1972, Ground-Water Hydraulics, U. S. Geol. Survey Prof. Paper 708, p. 27-29), which indicates the permeability of the section open to the well to be about 4×10^{-7} cm/sec.

Well MW-1 This well is one of the monitoring wells on the boundary of the land-treatment area, and is completed in the uppermost aquifer. It was drilled to 120 ft, and is screened in the interval 87 to 120 ft; the casing is sealed above 89 ft so as to isolate the uppermost aquifer. The slug test performed on July 3, 1984 indicated a permeability of about 1.2×10^{-4} cm/sec.

Information as to the construction of the wells is taken from Dames and Moore (March, 1981; Ground water and soils investigation, Ciniza Refinery near Gallup, New Mexico, and November, 1981, Groundwater monitoring plan, Ciniza Refinery near Gallup, New Mexico).

Please let me know if there are questions.

Sincerely,

John W. Shomaker
Consulting Geologist

cc: Tom Andrews, Delta H Engineering w/encl

well: Shell-Imiza OW-4
date: 7-3-84

casing size: nominal 4½" ID 4.0 csg. matl. PVC
water levels measured from top 4½ OD PVC casing, S side
which is 1.7 ± above ground level.

volume of slug:

OD, ft $\left(\frac{0.27}{0.30}\right)$	$\times \frac{1}{2})^2 \times \pi \times$ length, ft		= ft^3
0.30		0.10	0.006
0.243		0.04	0.003
0.27		4.84	0.274
0.243		0.26	0.015
0.27		4.81	0.273
0.27		0.26	0.015
0.18		0.03	0.001
0.11		0.25	0.002
		sum	0.489 = V, ft^3 = 3.66 gal.

Note - obstruction in casing at 33. won't pass 0.27 OD.

r_c = internal radius of casing above perfs: 0.165 ft

r_s = radius of screen or open hole: _____ ft

initial water level 26.15 ft below MP, time 07:51

$$H_o = \frac{V}{\pi r_c^2} = \frac{0.489}{\pi (0.165)^2} = 5.72 \text{ ft}$$

clock time	t, sec.	water level	H	H/Ho	remarks
08:20:54	0				slug released top slug: 23.2' MP
21:25?	31?	20.75	5.40	0.944	
22:28	94	20.76	5.39	0.942	
23:14	140	20.80	5.35	0.935	
23:51	177	20.81	5.34	0.934	
24:42	228	20.83	5.32	0.930	
25:42	288	20.87	5.28	0.923	
27:06	372	20.90	5.25	0.918	
28:14	440	20.92	5.23	0.914	
29:43	529	20.95	5.20	0.909	
30:55	601	20.97	5.18	0.906	
32:46	712	21.00	5.15	0.900	
35:16	862	21.04	5.11	0.893	
38:38	1064	21.10	5.05	0.883	
43:30	1356	21.19	4.96	0.867	
46:52	1558	21.21	4.94	0.864	raised slug 0.4ft.
49:26	1712	21.25	4.90	0.857	
52:54	1920	21.30	4.85	0.848	

clock time	t, sec.	level	H	H/H₀	remarks
t_0 = 08:20:54					
~~08:54:43~~		~~21.34~~			
08:56:50	2096	21.35	4.80	0.839	
09:00:16	2362	21.39	4.76	0.832	
:05:00	2646	21.45	4.70	0.822	
09:55	2941	21.50	4.65	0.813	
17:46	3412	21.60	4.55	0.795	
28:25	4051	21.71	4.44	0.776	m-scope trouble
46:00	5106	21.89	4.26	0.745	
10:02:23	6089	22.05	4.10	0.717	
14:00	6786	22.15	4.00	0.699	
10:24:26	7412	22.25	3.90	0.682	stopped test; slug almost uncovered

0:00 = 2346

late data matches: $\alpha = 10^{-1}$ curve, $Tt/r_c^2 = 1$ at $t = 50{,}000$ sec.

$T = \frac{1.0\, r_c^2}{t} = \frac{(1.0)(0.165)^2}{50{,}000} = 5.4 \times 10^{-7}$ ft²/sec

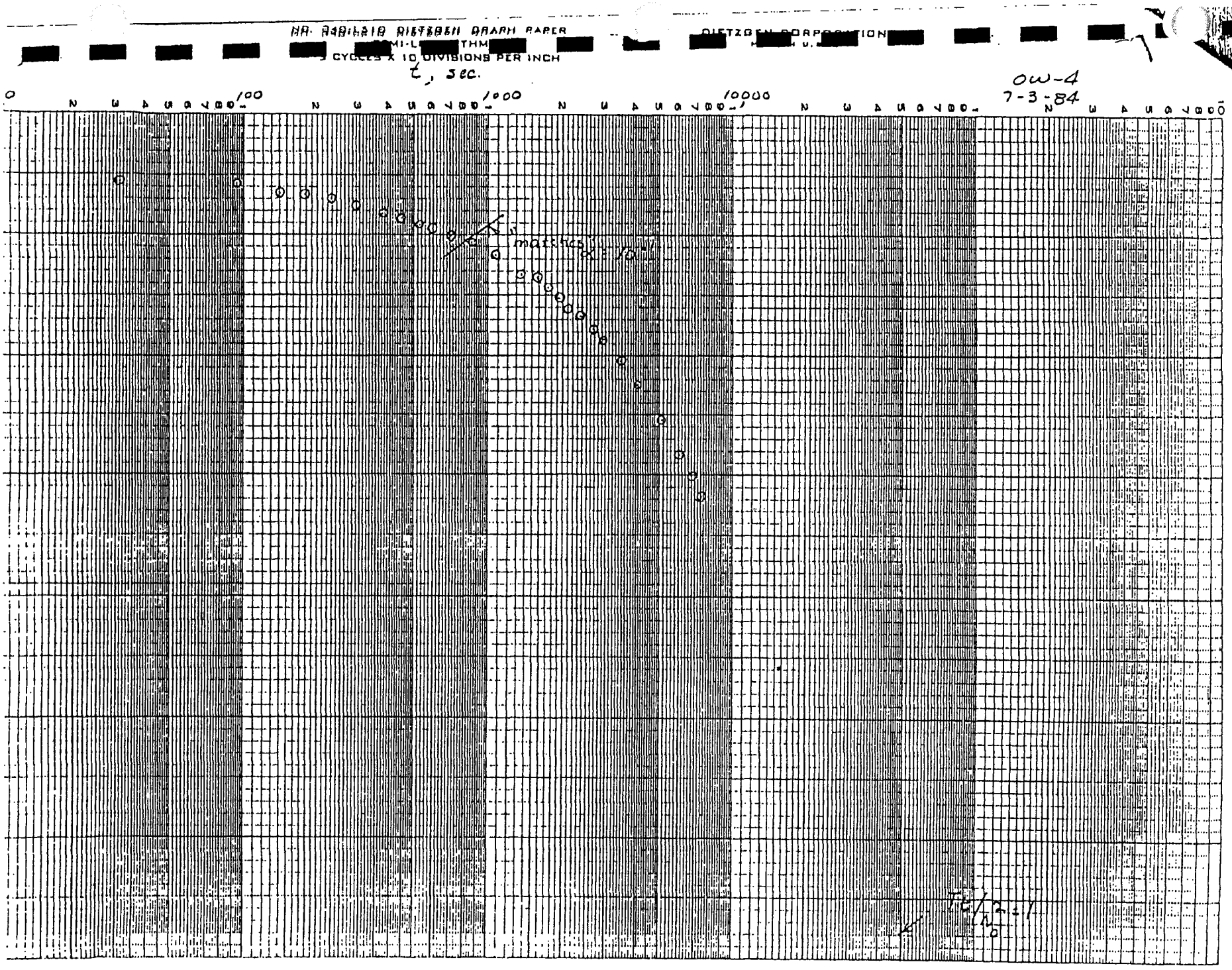
$= 0.05$ ft²/day $= 0.35$ gpd/ft

$K_1 = \frac{0.05 \text{ ft}^2/\text{day}}{40 \text{ ft screen}} = 0.001$ ft/day

0.001 ft/day × 30.5 cm/ft × $\frac{1}{60 \times 1440}$ sec/day = 4×10^{-7} cm/sec

$S = \frac{r_c^2}{r_s^2}\alpha \approx \frac{0.027}{0.080}$ $10^{-1} = 0.03$ ∴ water-table storage

6¾" hole?


AA· RADIAN DIETZGEN GRAPH PAPER
SEMI-LOGARITHM
3 CYCLES X 10 DIVISIONS PER INCH
t, sec.
100
1000
10000
OW-4
7-3-84
matrix
Fit 1/2:1

date: 7-2-84

casing size: nominal 5 1/2" OD, ID 5.1" csg. matl. PVC
water levels measured from top PVC casing, SW side
which is 1.37 ft above ground level, (concrete slab)
volume of slug:

2.05
.68
1.37

cap OD, ft $\left(\frac{\text{OD}}{2}\right)^2 \times \pi \times$ length, ft		=	
0.37 x 1/2	0.10	=	0.011 ft³
0.39	0.05		0.006
0.33	4.81		0.411
0.38	0.28		0.032
0.33	0.04		0.003
0.42	0.04		0.006
0.29	0.03		0.002
0.16	0.03		0.001
0.11	0.25		0.002
sum	0.474	= V, ft³	= 3.55 gal

r_c = internal radius of casing above perfs: 0.211 ft

r_s = radius of screen or open hole: _____ ft

initial water level 5.72 ft below mp, time 13:32

$$H_o = \frac{V}{\pi r_c^2} = \frac{0.474}{\pi (0.211)^2} = 3.389 \text{ ft}$$

clock time	t, sec.	water level	H	H/Ho	remarks
	0				slug released
13:48:00					
13:48:20	20	2.30 ft	3.42	1.009	zz
49:00	60	2.36	3.36	0.991	
49:26	86	2.42	3.30	0.974	
49:52	112	2.44	3.28	0.968	
50:32	152	2.50	3.22	0.950	
51:05	185	2.56	3.16	0.932	
51:42	222	2.60	3.12	0.921	
52:19	259	2.65	3.07	0.906	
52:55	295	2.70	3.02	0.891	
53:33	333	2.74	2.98	0.879	
54:26	386	2.80	2.92	0.862	
55:30	450	2.86	2.86	0.844	
57:05	545	2.97	2.75	0.811	
59:12	672	3.10	2.62	0.773	
14:01:05	785	3.20	2.52	0.744	
02:25	868	3.28	2.44	0.720	
03:52	952	3.36	2.36	0.696	

clock time	t, sec.	level	H	H/H₀	remarks
14:05:38	1058	3.45	2.27	0.670	
07:22	1162	3.54	2.18	0.643	
09:16	1276	3.62	2.10	0.620	
11:01	1381	3.69	2.03	0.599	
13:17	1517	3.79	1.93	0.569	
15:59	1679	3.89	1.83	0.540	
18:14	1814	3.97	1.75	0.516	
20:40	1960	4.07	1.65	0.487	
23:15	2115	4.15	1.57	0.463	
25:44	2264	4.22	1.50	0.443	
28:45	2445	4.31	1.41	0.416	
33:09	2709	4.43	1.29	0.381	
36:51	2931	4.52	1.20	0.354	
41:56	3236	4.64	1.08	0.319	
46:19	3499	4.71	1.01	0.298	
50:03	3723	4.78	0.94	0.277	
57:39	4179	4.90	0.82	0.242	
15:05:36	4356	5.01	0.71	0.210	
14:12	5172	5.12	0.60	0.177	
21:12	5592	5.18	0.54	0.159	
33:01	6301	5.28	0.44	0.130	
44:35	6995	5.36	0.36	0.106	
53:43	7543	5.40	0.32	0.094	
16:08:22	8422	5.46	0.26	0.077	
26:59	9539	5.52	0.20	0.059	
47:10	10,750.	5.56	0.16	0.047	
17:00:20	11,540	5.58	0.14	0.041	

late data matches: $\alpha = 10^{-5}$ curve, $Tt/r_c^2 = 1$ at $t = 830$ sec.

$$T = \frac{1.0\, r_c^2}{t} = \frac{(1.0)(0.21)^2}{830} = 5.36 \times 10^{-5}\ ft^2/sec$$

$$= 4.63\ ft^2/day = 35\ gpd/ft$$

$$K_h = \frac{4.63\ ft^2/day}{12.3\ ft\ screened} = 0.35\ ft/day$$

$$0.35\ ft/day \times 30.5\ cm/ft \times \frac{1}{60 \times 1440\ sec/day} = 1.2 \times 10^{-4}\ cm/sec$$

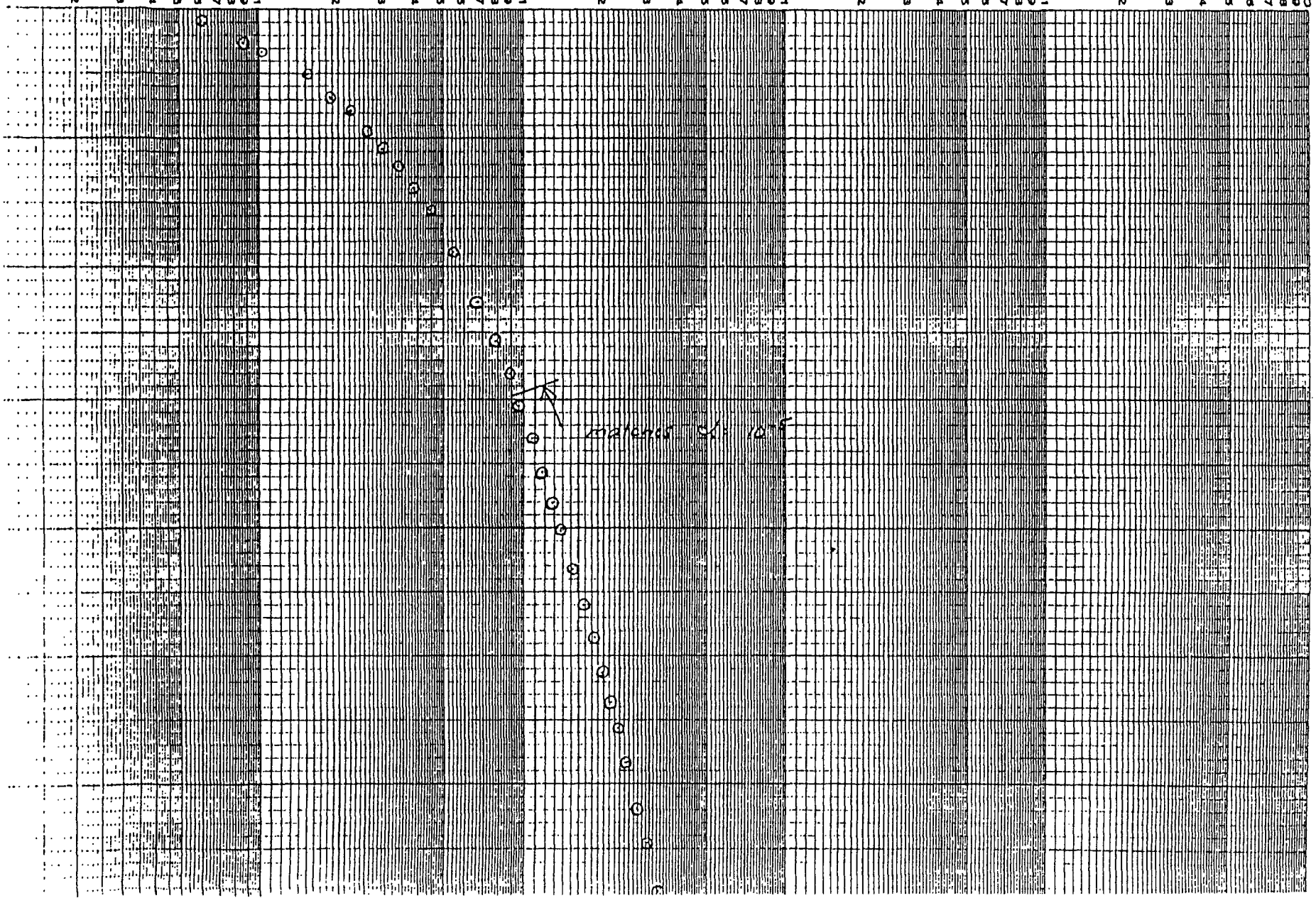
NO. 340-L510 DIETZGEN GRAPH PAPER
SEMI-LOGARITHMIC
5 CYCLES X 10 DIVISIONS PER INCH

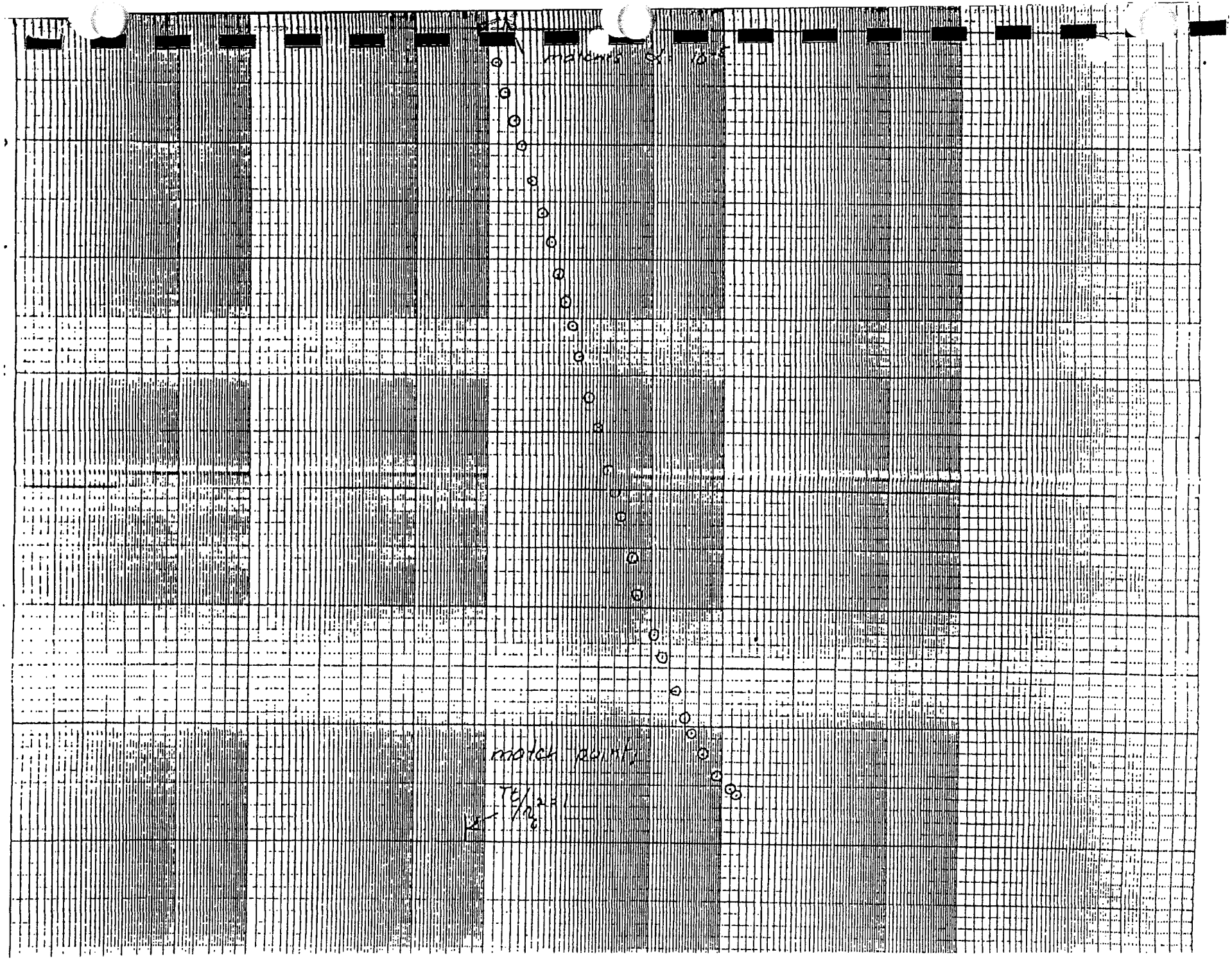
DIETZGEN CORPORATION
MADE IN U.S.A.

t, sec.

MW-1
7-2-84

100 1000 10000




markers at 10^{-5}
match points
$T_0/h_0^2 = 1$

APPENDIX C
RCRA POST-CLOSURE CARE PERMIT APPLICATION
LAND TREATMENT UNIT
GIANT REFINING COMPANY
CINIZA REFINERY

May 2000

RCRA Part A and Part B
Post-Closure Permit Application
Land Treatment Unit
May 2000

APPENDIX C

Land Treatment Unit Historical Information and Data

LAND TREATMENT UNIT HISTORICAL INFORMATION AND DATA

1.0 LAND TREATMENT HISTORY

> Historical LTU information and data extracted from existing permit applications, operating permits, operating records, and other source documents are provided as Appendix C. The inclusion of this appendix does not imply that historical information and data have been verified.

In August 1980, Ciniza Refinery (Ciniza) notified the U.S. Environmental Protection Agency (EPA) that it was a generator and operator of a hazardous waste management facility. In November 1980, Ciniza submitted a Part A permit application as an "existing facility" (defined at 40 *Code of Federal Regulations* §260.10). This granted Ciniza interim status for their Land Treatment Unit (LTU) operations. In response to notice from the Regional Administrator, Ciniza submitted a Part B permit application in December 1983. Based on changing guidance, Ciniza submitted a land treatment demonstration plan (LTD) and an application for a two-phase LTD permit in April 1985. On February 9, 1987, Ciniza was issued a Short-term LTD Permit (NMD000333211-1) to conduct a hazardous waste land LTD. The LTD was conducted to identify the land treatment capabilities for refinery waste generated by Ciniza. The LTD defined waste management parameters (e.g., rate-limiting constituent, application-limiting constituent, capacity-limiting constituent, and unit life of the LTU). This was accomplished by identifying the Principal Hazardous Constituents (PHCs) present in refinery waste streams and measuring their degradation, transformation, and immobilization in the treatment zone of the LTU. From the results of the LTD and a modified Part B permit application, Ciniza was issued a Hazardous Waste Facility Permit (NMD 000333211-2) on November 4, 1988. Ciniza has not applied hazardous wastes to the LTU since November 8, 1990.

1.1 Land Treatment Program [20 NMAC 4.1, Subpart IX, §270.20(b)]

Ciniza's Hazardous Waste Facility Permit established operational requirements for the LTU. These requirements inchinclude procedural and engineering controls necessary to ensure that hazardous constituents are fully treated within the LTU without uncontrolled release to the environment.

The LTU consists of a treatment zone of soil extending 5 ft deep from the original soil surface. This depth is shallow enough to ensure that the treatment zone is more than 3 ft above the seasonal high water table. The zone of incorporation (ZOI) within the treatment zone is the volume of soil to which the waste was directly applied.

The ZOI for the Ciniza LTU is the top 12 in. of the treatment zone. The LTU was designed and constructed to prevent both washout of any hazardous waste and to prevent inundation of and discharge from the permitted unit through the use of a continuous dike which surrounds the LTU at an elevation of 3 ft above the natural grade.

The ZOI was tilled during permitted operations to encourage aerobic microbial activity and improve chemical reaction rates. During active treatment soil nutrients were applied, as necessary, to optimize carbon:nitrogen: phosphorous (C:N:P) ratios. Applications of Ciniza wastes to the LTU were limited to ensure that treatment processes were not overwhelmed or poisoned. Performance indicators (e.g., soil moisture, pH, total organic carbon) were monitored in the ZOI to ensure that treatment was proceeding.

1.2 Treatment Zone Description [20 NMAC 4.1, Subpart IX, §270.20(b)(2) and §270.20(b)(5)]
The LTU consists of three 480-by-240-ft sections, each of which contain 2.6 acres (1.0 hectares) of available treatment surface. Each section is delineated by a continuous dike to prevent site runon and runoff. The treatment zone extends 5-ft deep from the top of the soil within the diked section. The top 12 in. of the treatment zone is the ZOI. The ZOI is tilled when active to encourage aerobic degradation of organics and to maintain moisture content of the soil. This leaves 4 ft of the treatment zone undisturbed.

The soil within the treatment zone is silty clay containing closely-spaced root systems in the uppermost 3 to 4 ft. Field infiltration rates (the rate at which water penetrates into the soil surface) averages 1.0×10^{-3} cm/sec or 3.6 cm/hr. Soil permeability as determined by laboratory measurements averages 1.9×10^{-5} cm/sec or 6.8×10^{-2} cm/hr for three locations at the 6- to 12-in. depth. Field infiltration rate allows prediction of runoff and erosion; permeability (hydraulic conductivity) allows estimation of vertical water movement rates in the soil. The treatment zone soils have a saturated hydraulic conductivity rating of "moderately low" by the U.S. Department of Agriculture Class (Giant Refining Company Part B Permit Application 1984). The low permeability of the treatment zone soil assists in retarding the vertical movement of hazardous constituents through the treatment zone.

The silty clay soil has a high cation exchange capacity (CEC). The CEC is the total amount of exchangeable cations that the soil has to exchange with cations in the soil solution. The exchangeable cations in the LTU are the heavy metals present in the Ciniza wastes. The high CEC results in high sorption of heavy metals in the LTU soils, assuming other factors (such as soil pH) are favorable.

RECENT SOIL PERMEABILITY TESTS
FIREWATER POND CONSTRUCTION PROJECT

ERCC

Precision Engineering, Inc.
P.O. Box 422
Las Cruces, NM 88004
505-523-7674

Proposed Fire Water Storage

Rigid Wall Hydraulic Conductivity
Falling Head

ATTN: James Romero
Giant Refining Company
Route 3, Box 7
Gallup, NM 87301

Project: Ciniza Fire Water Lagoon — File No.: 05-100
Soil Type: Silty Clay — Date: October 13, 2005 — Lab No.: 47872
Sampled From: Boring 05-100-1(2.5'-3.0') — Performed By: GG

TEST SPECIMEN CONDITIONS AT BEGINING OF TEST:

Wet Unit Weight: 120.8 pcf
Dry Unit Weight: 109.0 pcf

% Moisture: 10.8
% Compaction: n/a
% Compaction Requested: n/a

PROCTOR INFORMATION:

Maximum Dry Density: n/a pcf
Optimum Moisture Content: n/a %

Coefficient of Permeability, k_{20}: 1.1×10^{-7} cm/sec. avg

Remarks: Avg of three: 1.1×10^{-7}, 1.1×10^{-7}, 1.1×10^{-7}

C:\bin\Projects\2005\05100ciniza\rewt\[Permeability.xls]Report

Reviewed By: Reviewed By: Certified By:

05-100
SWMU NO. 1
AL 2
AL 1
LAB #
DEPTH
0.0-5.0

...SW Corner of Proposed
...er Lagoon
...Elevation: -98.2@TD,-27@1 hr
...ing No.: 05-100-1

Precision Engineering, In
P.O. Box 422
Las Cruces, NM 88004
505-523-7674

File #: 05-100
Site: Giant-Cliniza

Elevation: EXISTING
Date: 9/24/2005

Log of Test Borings

LAB #	DEPTH	BLOW COUNT	PLOT	SCALE	MATERIAL CHARACTERISTICS (MOISTURE, CONDITION, COLOR,ETC.)	%M	LL	PI	CLASS.
	0.0-5.0				Clay, Very Silty, Sandy, Very Fine, Dark Red, Wet, Firm				
47872				2.5	[2.5-3.0 hydraulic conductivity sample]				
	5.0-10.0			5.0	Same As Above, Wet, Soft				
				7.5					
	10.0-15.0			10.0	Same As Above				
				15.0					
	15.0-16.0				Same As Above				
	16.0-17.5				Sand, Very Fine, Very Clayey, Very Silty, Weak Water Bearing, Moderately Dense, Dark Red/Brown				
	17.5-21.5				Clay, Dark Red, Wet, Soft				
				20.0					

SIZE & TYPE OF BORING: 4 1/4" ID HOLLOW STEMMED AUGER LOGGED BY: WHK

C:\bill\Projects\2005\05100cliniza\rewtr\[Boring 1.xls]Sheet1

Sheet: 2 OF 5
Bore Point: SW Corner of Proposed
Fire Water Lagoon
Water Elevation:
Boring No.: 05-100-1

Precision Engineering, Inc.
P.O. Box 422
Las Cruces, NM 88004
505-523-7674

File #:
Site:
Elevation: EXISTI
Date: 9/24/2005

Sheet: 3 OF 5
#: SW Corner of Propose
Fire Water Lagoon
Water Elevation:
Boring No.: 05-100-1

BLOW
LAB #

Log of Test Borings

LAB #	DEPTH	BLOW COUNT	PLOT	SCALE	MATERIAL CHARACTERISTICS (MOISTURE, CONDITION, COLOR,ETC.)	%M	LL	PI	CLASS.
	21.5-22.1				Clay, Sandy, Dark Brown, Wet, Stiff				
	22.1-23.5				Clay, Hard, Red/Brown (Brighter than Above), Wet/Moist				
	23.5-25.1				Petrified Forest Formation Mudstone/Claystone, Weathered, Some Grey/Green Reduction Spots, Generally Red/				
				25.0	Brown, Fissile to Crumbly, Damp/Moist				
	25.0-30.0				Mudstone, As Above, Few Reduction Spots, Damp/Dry				
				30.0					
	30.0-35.0				Same As Above dry				
				35.0					
	35.0-40.0				Same As Above dry				
				40.0					
	40.0-45.0				Same As Above, Brighter Red @ 44.5'-45.0', dry				
	41.5				siltstone/mudstone, dry, very dense,bright red brown				

SIZE & TYPE OF BORING: 4 1/4" ID HOLLOW STEMMED AUGER LOGGED BY: WHK

C:\HP\Projects\2005\05100andza\frown\[Boring 1.xls]Sheet1A

Sheet: 2 OF 5
Bore Point: SW Corner of Proposed Fire Water Lagoon
Water Elevation:
Boring No.: 05-100-1

Precision Engineering, Inc.
P.O. Box 422
Las Cruces, NM 88004
505-523-7674

File #:
Site: G
Elevation: EXISTI
Date: 9/24/2005

Log of Test Borings

LAB #	DEPTH	BLOW COUNT	PLOT	SCALE	MATERIAL CHARACTERISTICS (MOISTURE, CONDITION, COLOR,ETC.)	%M	LL	PI	CLASS.
	21.5-22.1				Clay, Sandy, Dark Brown, Wet, Stiff				
	22.1-23.5				Clay, Hard, Red/Brown (Brighter than Above), Wet/Moist				
	23.5-25.1				Pertrified Forest Formation Mudstone/Claystone, Weathered, Some Grey/Green Reduction Spots, Generally Red/				
				25.0	Brown, Fissile to Crumbly, Damp/Moist				
	25.0-30.0				Mudstone, As Above, Few Reduction Spots, Damp/Dry				
				30.0					
	30.0-35.0				Same As Above dry				
				35.0					
	35.0-40.0				Same As Above dry				
				40.0					
	40.0-45.0				Same As Above, Brighter Red @ 44.5'-45.0', dry				
	41.5				siltstone/mudstone, dry, very dense,bright red brown				

SIZE & TYPE OF BORING: 4 1/4" ID HOLLOW STEMMED AUGER LOGGED BY: WHK

C:\bill\Projects\2005\05100\bzfinew\[Boring 1.xls]Sheet1A

Date: 9/24/05
Elevation: EXISTING
Site: Giant-Ciniza
Sheet 3 Of 8
NW Corner of Proposed Lagoon
Elevation:
No.: 05-100-1

Precision Engineering, Inc.
P.O. Box 422
Las Cruces, NM 88004
505-523-7674

File #: 05-100
Site: Giant-Ciniza

Elevation: EXISTING
Date: 9/24/2005

Log of Test Borings

LAB #	DEPTH	BLOW COUNT	PLOT	SCALE	MATERIAL CHARACTERISTICS (MOISTURE, CONDITION, COLOR,ETC.)	%M	LL	PI	CLASS.
	45.0-50.0			45.0	Mudstone/Siltstone, Bright Red/Brown, Dry Very Dense				
	50.0-55.0			50.0	Same As Above				
	55.0-60.0			55.0	Same As Above				
	60.0-65.0			60.0	Same As Above				

SIZE & TYPE OF BORING: 4 1/4" ID HOLLOW STEMMED AUGER LOGGED BY: WHK

C:\bill\Projects\2005\05100ciniza\rewr\[Boring 1.xls]Sheet1B

Sheet: 4 OF 5
Bore Point: SW Corner of Proposed
Fire Water Lagoon
Water Elevation:
Boring No.: 05-100-1

Precision Engineering, Inc.
P.O. Box 422
Las Cruces, NM 88004
505-523-7674

File #: Sheet 5 of 5
Site: SW Corner of Proposed Fire Water Lagoon
Elevation: EXISTING
Date: 9/24/2005
Boring No.: 05-100-1

Log of Test Borings

LAB #	DEPTH	BLOW COUNT	PLOT	SCALE	MATERIAL CHARACTERISTICS (MOISTURE, CONDITION, COLOR,ETC.)	%M	LL	PI	CLASS
	65.0-66.2			65.0	Same As Above				
	66.2-67.4				Sandstone, Fine, Red/Brown, Hard, Fissile, Grey/Green Orbicular Reduction Spots Abundant, Dry				
	67.4-78.0			70.0	Sandstone/Siltstone Interbeds, Some Mudstone, Dark Red/Brown, Hard, Dry				
				75.0					
	78.0-79.1				Mudstone, Fissile, Dry, Red/Brown, Some Grey/Green Reduction Spots				
	79.1-97.7			80.0	Sandstone, Fine, Red/Brown, Fissile, Hard, Feldspathic, Bedded 6" to 1.0', White Mottled Upper Sonsela Member				
				85.0					

SIZE & TYPE OF BORING: 4 1/4" ID HOLLOW STEMMED AUGER LOGGED BY: WHK

Precision Engineering, Inc.
P.O. Box 422
Las Cruces, NM 88004
505-523-7674

File #: 05-100
Site: Giant-Ciniza

Elevation: EXISTING
Date: 9/24/2005

Log of Test Borings

Page 3 of 5
File No.: 05-100-1
Site: Corner of Proposed Lagoon
Elevation:
Date: 9/24/2005
Elevation: EXISTING

LAB #	DEPTH	BLOW COUNT	PLOT	SCALE	MATERIAL CHARACTERISTICS (MOISTURE, CONDITION, COLOR,ETC.)	%M	LL	PI	CLASS.
					Upper Sonsela Member Continued (dry)				
				90.0					
				95.0					
	97.7-98.2				Mudstone, Hard, Dry, Green/Grey-White				
	98.2-101.6			100.0	Sandstone, Fine to Medium, Quartz Grains, Water Bearing, Hard, (Sonsela Member, Petrified Forest Formation, Chinle Group)				
	101.6			105.0	TD Boring continuopusly sampled using 5' split barreled intrusion sampler. Boring closed using 10' of 3/8" TR-30 Pel Plug capped with 50' of 8% bentonite cement slurry and backfilled to the ground surface with cuttings.				

SIZE & TYPE OF BORING: 4 1/4" ID HOLLOW STEMMED AUGER LOGGED BY: WHK

C:\bill\Projects\2005\05100ciniza\rewrt\[Boring 1.xls]Sheet1D

Appendix D

Boring Logs

RPS

LOG OF BORING

Boring No.: SWMU 1-1
Start Date: 10/5/2012 1215
Finish Date: 10/5/2012 1430

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon

Total Depth: 14' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Comments: N 35°29.447' W 108°25.774'; Reamed to 12', set temporary well 3-8' bgl

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					12.9 72°F		50	**Fill (Silty Clay)** Low plasticity, stiff, brown, dry, faint odor at base	0
2	2-4'	1410	G/ 2M/3J		245 72°F		50	**Fill (Silty Clay)** Similar to above, black staining, strong odor	2
4							--	No Recovery	4
6					333 72°F		50	**Silty Clay (CL)** Low plasticity, soft, damp, odor	6
8					144 72°F		60	**Clay (CH)** High plasticity, very stiff, dry to damp, odor	8
10	10-12'	1415	G/ 2M/1J		399 72°F		30	**Clay (CH)** Similar to above	10
12					148 77°F		90	**Clay (CH)** Similar to above	12
14	13-14'	1430	G/ 2M/3J		199 77°F			**Petrified Forest Formation (Sandstone)** Very dense, dry, gray, no odor	14
								Total Depth = 14' BGL	
16									16
18									18
20									20
22									22

RPS
1250 S. Capital of Texas Hwy., Bldg. 3, Suite 200
Austin, Texas 78746

512/347-7588
512/347-8243 fax

LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.448' W 108°25.813'

Total Depth: 20' bgl
Ground Water: Saturated @ 8' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SWMU 1-2
Start Date: 10/2/2012 0745
Finish Date: 10/2/2012 1115

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					3 41°F		60	**Silty Clay (CL)** Low plasticity, firm, damp, reddish brown, no odor, trace calcareous	0
2					3.7 41°F		80	**Silty Clay (CL)** Similar to above	2
4					6.1 41°F		90	**Silty Clay (CL)** Low plasticity, soft, damp, reddish brown, no odor	4
6	6-8'	1000	G/2S 2M/3J	8' bgl	2.8 41°F		100	**Silty Clay (CL)** Similar to above, very soft, no odor	6
8							0	No Recovery	8
10	10- 11'	1020	G/2S 2M/3J		4.7 44°F		90	**Clayey Sand (SC)** Fine grain, compact, saturated, brown, no odor	10
12					4.3 44°F		90	**Clay (CL)** Moderate to low plasticity, firm, damp, reddish brown, no odor **Clay (CH)** High plasticity, firm, damp, dark reddish brown, no odor	12
14					3.2 44°F				14

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Austin, Texas 78746

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LOG OF BORING

Boring No.: SWMU 1-2
Start Date: 10/2/2012 0745
Finish Date: 10/2/2012 1115

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.448' W 108°25.813'

Total Depth: 20' bgl
Ground Water: Saturated @ 8' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
16	14-16'	1035	G/2S 2M/3J		3.7 46°F		90	**Clayey Sand (SC)** Fine grain, compact, saturated, brown, no odor	16
								Clay (CH) High plasticity, firm, damp, brown, odor	
	17-17.25'	1050	G/2S 2M/3J		7.2 48°F		90	**Clayey Sand (SC)** Fine grain, loose, saturated, brown, odor	
18								**Clay (CH)** High plasticity, firm, damp, brown, odor, trace gravel	18
					2.9 53°F		90	**Clay (CH)** Similar to above	
	19.5-20'	1105	G/2S 2M/2J		2.3 53°F			**Clayey Sand (SC)** Fine grain, loose, saturated, brown, no odor	
20								**Clay (CH)** High plasticity, firm, damp, brown, odor, trace gravel	20
22								**Petrified Forest Formation - Mudstone/Sandstone** Dense, damp, gray reddish brown, no odor, weathered	22
								Total Depth = 20' BGL	
	SWMU 1-2 GW	1345							
24									24
26									26
28									28

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LOG OF BORING

Boring No.: SWMU 1-3
Start Date: 10/2/2012 1440
Finish Date: 10/2/2012 1745

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon

Total Depth: 20' bgl
Ground Water: Saturated @ 11' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Comments: N 35°29.466' W 108°25.829'; Set well screen - no fluid detected

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					17.3 81°F		50	**Silty Clay (CL)** Low plasticity, firm, damp, brown, gravel present, no odor	0
2	2-4'	1620	G/2S 2M/3J		21.3 81°F		60	**Silty Clay (CL)** Similar to above, reddish brown, no odor	2
4					10.3 80°F		60	**Silty Clay (CL)** Similar to above, reddish brown, no odor, gravel present	4
6					18.9 80°F		100	**Silty Clay (CL)** Low plasticity, very soft, damp, reddish brown, no odor	6
8					14.2 80°F		60	**Silty Clay (CL)** Similar to above, no odor	8
10	10-11'	1635	G/2S 2M/3J	11' bgl	16.3 80°F		70	**Silty Clay (CL)** Similar to above, no odor	10
	11-11.25'	1650	G/2S 2M/1J		12.3 80°F		90	**Clayey Sand (SC)** Fine grain sand, compact, moist to saturated	
12					7.4 80°F		80	**Clay (CH)** High plasticity, firm, damp, reddish brown, no odor **Clay (CH)** Similar to above, no odor	12
14					8.9 78°F		100	**Clay (CH)** Similar to above, no odor	14
16					11.3 78°F		90	**Clay (CH)** High plasticity, firm, damp, reddish brown, no odor	16
					10.7				

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RPS

LOG OF BORING

Boring No.: SWMU 1-3
Start Date: 10/2/2012 1440
Finish Date: 10/2/2012 1745

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon

Total Depth: 20' bgl
Ground Water: Saturated @ 11' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Comments: N 35°29.466' W 108°25.829'; Set well screen - no fluid detected

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
18					78°F			**Sandy Clay/Clayey Sand (CL/SC)** Low plasticity, soft, very fine grain, damp, reddish brown, no odor	18
	18.5-19.5'	1710	G/2S 2M/3J		5.4 78°F		60	**Clayey Sand (SC)** Similar to above, very moist to slightly saturated, no odor	
20	19.5-20'	1725	G/2S 2M/2J		6.1 78°F			**Petrified Forest Formation - Mudstone** Very dense, dry, reddish brown, no odor	20
								Total Depth = 20' BGL	
22									22
	EB100212	1745							
24									24
26									26
28									28
30									30
32									32

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LOG OF BORING

Boring No.: SWMU 1-4
Start Date: 10/3/2012 1115
Finish Date: 10/3/2012 1530

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon

Total Depth: 24' bgl
Ground Water: Saturated at 10' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Comments: N 35°29.498' W 108°25.827'; Set temporary screen 16-21' bgl and sanded on 10/3/2012

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					2.9 75°F		60	**Silty Clay (CL)** Low plasticity, stiff, dry, reddish brown, gravel, no odor	0
2					3.8 75°F		60	**Silty Clay (CL)** Similar to above, no odor	2
4					3.0 75°F		10	**Silty Clay (CL)** Similar to above, no odor	4
6					3.1 75°F		50	**Silty Clay (CL)** Low plasticity, firm, damp, reddish brown	6
8	8-10'	1300	G/2S 2M/3J	10' bgl	3.1 75°F		60	**Silty Clay (CL)** Similar to above, trace gravel, no odor	8
10	10-12' &Dup	1315	G/4S 4M/2J		7.8 78°F		60	**Clayey Sand (SC)** Fine grain, compact, moist to saturated, reddish brown, no odor	10
12					13.2 78°F		60	**Silty Clay (CL)** Low plasticity, soft, damp, reddish brown, no odor	12
14							--	No Recovery	14
16	17-18'	1345	G/2S 2M/3J		11.8 80°F		90	**Silty Clay (CL)** Similar to above, black staining and odor	16
18					16.4 80°F			**Sandy Clay/Clayey Sand (SC/CL)** Fine grain, compact, moist to saturated, odor	18
20					8.5 80°F		90	**Sandy Clay (CL)** Similar to above, moist to saturated, odor	20
22					8.5 79°F		60	**Clay (CH)** High plasticity, stiff to firm, damp, reddish brown, odor	22

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LOG OF BORING

Boring No.: SWMU 1-4
Start Date: 10/3/2012 1115
Finish Date: 10/3/2012 1530

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon

Total Depth: 24' bgl
Ground Water: Saturated at 10' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Comments: N 35°29.498' W 108°25.827'; Set temporary screen 16-21' bgl and sanded on 10/3/2012

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
23	23-24'	1400	G/2S 2M/3J		5.6 79°F 5.2 79°F		90	**Clay (CH)** Similar to above, very stiff **Petrified Forest Formation - Mudstone** Dry, reddish brown to gray, weathered, no odor Total Depth = 24' BGL	23
25									25
27									27
29									29
31									31
33									33
35									35
37									37
39									39
41									41
43									43

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.525' W 108°25.824'

Total Depth: 28' bgl
Ground Water: Saturated at 25' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SWMU 1-5
Start Date: 10/3/2012 1530
Finish Date: 10/3/2012 1830

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					6.8 75°F		60	**Fill (Silty Clay)** Low plasticity, stiff, dry to damp, no odor	0
2					8.1 75°F		60	**Silty Clay (CL)** Similar to above, no odor	2
4					8.4 75°F		60	**Silty Clay (CL)** Similar to above, no odor	4
6					2.5 75°F		90	**Silty Clay (CL)** Low plasticity, firm to soft, reddish brown, damp, no odor	6
8					3.8 75°F		90	**Silty Clay (CL)** Similar to above, no odor	8
10	10-12'	1730	G/2S 2M/3J		9.8 74°F		60	**Clayey Sand (SC)** Fine grain, loose to compact, damp, brown, sandstone gravel present, no odor	10
12					8.2 74°F		40	**Silty Clay/Clay (CL)** Moderate to low plasticity, soft, damp, reddish brown, no odor, trace gravel	12
14	14-16-	1745	G/2S 2M/3J		11.0 74°F		60	**Sandy Clay/Clayey Sand (SC/CL)** Fine grain, loose to compact, damp, reddish brown/brown, calcareous gravel present	14
16	16-18'	1800	G/2S 2M/3J		16.1 76°F		90	**Gravelly Clay (CL)** Low plasticity, soft/crumbly, damp, reddish brown, no odor	16
18					12.8 76°F		90	**Gravelly Clay (CL)** Similar to above, slightly more plastic, no odor	18
20					5.7 75°F		90	**Gravelly Clay (CL)** Similar to above	20
22									22

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LOG OF BORING

Boring No.: SWMU 1-5
Start Date: 10/3/2012 1530
Finish Date: 10/3/2012 1830

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.525' W 108°25.824'

Total Depth: 28' bgl
Ground Water: Saturated at 25' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
24	24-25'	1810	G/2S 2M/2J	25' bgl	5.5 76°F 10.9 75°F		95	**Gravelly Clay (CL)** Moderate plasticity, firm, damp, reddish brown, no odor, calcareous, sandstone gravel present, stiff at base	24
							50	**Gravelly Clay (CL)** Similar to above, moist at 25' bgl, no recovery from 25-26' bgl	
26	26-27'	1820	G/2S 2M/1J		3.0 75°F		70	**Clayey Sand (SC)** Fine grain, loose, saturated, reddish brown, no odor	26
	27-28'	1830	G/2S 2M/3J		4.1 75°F			**Petrified Forest Formation (Mudstone)** Very dense, dry, gray, weathered	
28	EB100312	1844						Total Depth = 28' BGL	28
30									30
32									32
34									34
36									36
38									38
40									40
42									42
44									44

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LOG OF BORING

Boring No.: SWMU 1-6
Start Date: 10/4/2012 0950
Finish Date: 10/4/2012 1155

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.523' W 108°25.802'; Set temporary well 7-12' bgl

Total Depth: 12' bgl
Ground Water: Saturated at 4' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					10.5 70°F		90	**Fill (Silty Clay/Gravel)** Dry to damp, brown, no odor	0
2	2-4' &Dup	1055	G/4S 4M/2J	4' bgl	37.5 70°F		90	**Fill (Silty Clay)** Similar to above, damp	2
4	4-6'	1115	G/2S 2M/2J		15.9 70°F		60	**Clayey Sand (SC)** Medium grained, loose, saturated, reddish brown, no odor	4
6					5.8 70°F		60	**Clayey Sand (SC)** Similar to above, saturated	6
8	7.5-8'	1130	G/2S 2M/2J	9' bgl	4.9 70°F		90	**Silty Clay (CL)** Moderate plasticity, soft, damp to moist, reddish brown, no odor	8
					7.8 70°F		60	**Silty Clay (CL/SC)** Similar to above, moist to very moist, grades to saturated clayey sand, no odor	
10	10-11'	1145	G/2S 2M/2J		9.6 70°F		90	**Clayey Sand (SC)** Medium plasticity, loose, saturated, reddish brown, no odor	10
12	11-12'	1155	G/2S 2M/3J		0.8 70°F			**Petrified Forest Formation (Mudstone)** Very dense, dry, reddish brown and gray, no odor, weathered	12
14								Total Depth = 12' BGL	14
16									16
18									18
20									20
22									22

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.501' W 108°25.776'

Total Depth: 18' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SWMU 1-7
Start Date: 10/4/2012 1235
Finish Date: 10/4/2012 1440

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					7.6 72°F		70	**Fill (Silty Clay (CL))** Low plasticity, firm, dry to damp, brown, no odor	0
2					4.8 72°F		70	**Silty Clay (CL)** Similar to above, no odor, trace gravel	2
4					5.1 72°F		70	**Silty Clay (CL)** Similar to above	4
6					4.0 72°F		50	**Silty Clay (CL)** Low plasticity, soft, damp, reddish brown, no odor, trace gravel	6
8					1.7 72°F		40	**Silty Clay (CL)** Similar to above, no odor	8
10					0.5 73°F		60	**Silty Clay (CL)** Similar to above, no odor	10
12	12-14'	1355	G/2S 2M/3J	◀ 14' bgl	0.4 73°F		90	**Clay (CH)** High plasticity, firm to soft, damp, reddish brown, no odor, dark brown organic matter in fractures/fissures	12
14	14-16'	1415	G/2S 2M/3J		5.9 73°F		70	**Clay (CH)** Similar to above, clayey sand seams present, saturated, no odor, very dense clay at base	14
16	16-18'	1440	G/2S 2M/3J		2.8 73°F		60	**Petrified Forest Formation - Clay/Mudstone** Very dense, dry, reddish brown to gray, no odor	16
18								Total Depth = 18' BGL	18
20									20
22									22

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LOG OF BORING

Boring No.: SWMU 1-8
Start Date: 10/5/2012 0815
Finish Date: 10/5/2012 1200

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon

Total Depth: 20' bgl
Ground Water: Saturated @ 12' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Comments: N 35°29.466' W 108°25.768'; Reamed to 18' bgl, Collected full suite (SWMU 1-8 GW)

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0					26.5 65°F		60	**Fill (Silty Clay)** Low plasticity, stiff, dry, brown, gravelly, no odor	0
2					9.9 65°F		60	**Fill (Silty Clay)** Similar to above, no odor	2
4	4-6'	1020	G/2S 2M/3J		13.5 65°F		80	**Clayey Sand (SC)** Medium grain, compact, moist to saturated, brown, odor	4
6					8.8 65°F		80	**Silty Clay (CL)** Low plasticity, firm, damp, brown, no odor	6
8					10.0 65°F		20	**Silty Clay (CL)** Similar to above	8
10	10-12'	1030	G/2S 2M/1J	12' bgl	15.8 69°F		10	**Silty Clay (CL)** Similar to above	10
12	12-14'	1040	G/2S 2M/3J		161 69°F		40	**Silty Clay/Clayey Sand (CL/SC)** Low plasticity, very soft, moist to saturated, brown, hydrocarbon odor, gravelly, loose	12
14					9.9 69°F		60	**Clayey Sand (SC)** Medium grain, compact, damp to moist to saturated, brown, odor	14
16	16-18' &Dup	1110	G/4S 4M/6J		8.3 69°F		90	**Clayey Sand/Sandy Clay (SC)** Similar to above, moist to saturated, brown, odor	16
18					14.0 69°F		90	**Clayey Sand (SC)** Similar to above	18
20	19-20'	1125	G/2S 2M/3J		10.5 69°F			**Petrified Forest Formation (Mudstone)** Very dense, dry to damp, reddish brown/gray, no odor	20
22	SWMU 1-8 GW	1605						Total Depth = 20' BGL	22

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LOG OF BORING

Boring No.: SWMU 1-9
Start Date: 10/15/2012 1030
Finish Date: 10/15/2012 1105

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.464' W 108°25.768'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1055	G/2S 2M/3J		3.2 63°F		100	**Fill (Silty Clay/Gravel (CL))** Very dense, compact, dry, brown, no odor	0
							100	**Fill (Silty Sand (SM))** Fine to medium grain, damp, brown, no odor	
2	1.5-2'	1105	G/2S 2M/3J		7.0 63°F		100	**Silty Clay (CL)** Low plasticity, soft, damp, brown, no odor	2
								Total Depth = 2' BGL	
4									4
6									6
8									8
10									10
12									12

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LOG OF BORING

Boring No.: SWMU 1-10
Start Date: 10/15/2012 1110
Finish Date: 10/15/2012 1130

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.456' W 108°25.766'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1120	G/2S 2M/3J		10.1 68°F		100	**Fill (Silty Clay/ Gravel (CL))** Very dense, compact, dry, brown, no odor	0
	1.5-2'	1130	G/2S 2M/3J		6.1 68°F		100	**Fill (Silty Sand (SM))** Fine to medium grain, damp, brown, no odor, gravelly	
2								Total Depth = 2' BGL	2
4									4
6									6
8									8
10									10
12									12

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LOG OF BORING

Boring No.: SWMU 1-11
Start Date: 10/15/2012 1140
Finish Date: 10/15/2012 1220

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.449' W 108°25.773'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1205	G/2S 2M/3J		38.9 71°F		100	**Fill (Silty Clay/Gravel (CL))** Very dense, compact, dry to damp, brown, no odor	0
2	1.5-2'	1220	G/2S 2M/3J		3.7 71°F			Total Depth = 2' BGL	2
4									4
6									6
8									8
10									10
12									12

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LOG OF BORING

Boring No.: SWMU 1-12
Start Date: 10/15/2012 1330
Finish Date: 10/15/2012 1500

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.446' W 108°25.782'

Total Depth: 1' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1445	G/2S 2M/3J		63 74°F		100	**Fill (Silty Clay/Gravel (CL))** Very dense, compact, dry to damp, brown, no odor, refusal at 1' bgl in gravel	0
	0.5-1'	1500	G/2S 2M/3J		4.4 74°F				
								Total Depth = 1' BGL	
2									2
4									4
6									6
8									8
10									10
12									12

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.444' W 108°25.792'

Total Depth: 6' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SWMU 1-13
Start Date: 10/12/2012 1335
Finish Date: 10/12/2012 1500

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1405	G/2S 2M/3J		3.1 70°F		80	**Fill (Silty Clay (CL))** Low plasticity, stiff, dry to damp, brown, gravelly, no odor	0
2	1.5-2'	1425	G/2S 2M/3J						2
	2-4'	1435	G/2S 2M/3J		35.7 70°F		90	**Fill (Silty Clay (CL))** Similar to above, no odor	
4									4
	4-6' &Dup	1500	G/4S 4M/4J		15.6 70°F		90	**Fill (Silty Clay (CL))** Similar to above, reddish brown, no odor	
6								Total Depth = 6' BGL	6
8	EB101212	1620							8
10									10
12									12
14									14
16									16
18									18
20									20
22									22

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LOG OF BORING

Boring No.: SWMU 1-14
Start Date: 10/15/2012 1505
Finish Date: 10/15/2012 1555

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.444' W 108°25.802'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1530	G/2S 2M/3J		5.7 72°F		100	**Fill (Silty Clay/Gravel (CL))** Firm, dry to damp, brown, no odor	0
	1.5-2' &Dup	1555	G/4S 4M/6J		4.7 72°F		100	**Fill (Clay (CH))** High plasticity, firm, damp, brown, no odor	
2								Total Depth = 2' BGL	2
4									4
6									6
8									8
10									10
12									12

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.445' W 108°25.811'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SWMU 1-15
Start Date: 10/15/2012 1600
Finish Date: 10/15/2012 1630

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1620	G/2S 2M/3J		5.7 70°F		100	**Fill (Silt/Silty Clay (ML/CL))** Firm, dry to damp, brown, no odor	0
2	1.5-2'	1630	G/2S 2M/3J		9.3 70°F		100	**Fill (Clay (CH))** High plasticity, firm, damp, brown, no odor	2
								Total Depth = 2' BGL	
4									4
6									6
8									8
10									10
12									12

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LOG OF BORING

Boring No.: SWMU 1-16
Start Date: 10/15/2012 1635
Finish Date: 10/15/2012 1705

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.449' W 108°25.824'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1655	G/2S 2M/3J		7.7 69°F		100	**Fill (Silt/Gravel (ML))** Fine grain, loose, brown, dry, no odor	0
	1.5-2'	1705	G/2S 2M/3J		5.7 69°F		100	**Fill (Silty Clay/Gravel (CL))** Moderate to high plasticity, firm, damp, reddish brown, no odor	
2								Total Depth = 2' BGL	2
4									4
6									6
8									8
10									10
12									12

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LOG OF BORING

Boring No.: SWMU 1-17
Start Date: 10/15/2012 1710
Finish Date: 10/15/2012 1740

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.458' W 108°25.827'

Total Depth: 1.5' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1730	G/2S 2M/3J		9.5 67°F		100	**Fill (Silt/Gravel (ML))** Fine grain, loose, dry, brown, no odor	0
	1-1.5'	1740	G/2S 2M/3J		6.7 67°F		100	**Fill (Silty Clay (CL))** Low to moderate plasticity, firm, damp, brown, no odor, refusal at 1.5' bgl in gravel	
2	EB101512	1800						Total Depth = 1.5' BGL	2
4									4
6									6
8									8
10									10
12									12
14									14

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LOG OF BORING

Boring No.: SWMU 1-18
Start Date: 10/16/2012 0940
Finish Date: 10/16/2012 1010

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.460' W 108°25.829'

Total Depth: 1.5' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1000	G/2S 2M/3J		8.2 61°F		100	**Fill (Silt/Gravel (ML))** Fine grain, dry, brown, no odor	0
	1-1.5'	1010	G/2S 2M/3J		5.2 61°F		100	**Fill (Silty Clay (CL))** Low to moderate plasticity, firm, damp, brown, no odor, refusal at 1.5' bgl	
2								Total Depth = 1.5' BGL	2
4									4
6									6
8									8
10									10
12									12
14									14

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LOG OF BORING

Boring No.: SWMU 1-19
Start Date: 10/16/2012 1015
Finish Date: 10/16/2012 1035

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.473' W 108°25.835'

Total Depth: 0.5' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1035	G/2S 2M/3J		4.1 65°F		100	**Fill (Silt (ML))** Fine grain, loose, dry, brown, no odor, gravel at base, refusal at 0.5' bgl	0
								Total Depth = 0.5' BGL	
2									2
4									4
6									6
8									8
10									10
12									12

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LOG OF BORING

Boring No.: SWMU 1-20
Start Date: 10/11/2012 1110
Finish Date: 10/11/2012 1300

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.479' W 108°25.842'

Total Depth: 12' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5' &Dup	1220	G/4S 4M/6J		21.7 74°F		60	**Silt/Silty Clay (ML/CL)** Low plasticity, loose to compact, dry, light brown, no odor	0
2	1.5-2'	1230	G/2S 2M/2J		4.6 74°F		60	**Silty Clay (CL)** Low plasticity, very stiff, dry, brown, no odor	2
4	4-6'	1245	G/2S 2M/3J		2.5 74°F		60	**Silty Clay (CL)** Similar to above, no odor	4
6					2.8 74°F		70	**Silty Clay (CL)** Similar to above, no odor	6
8					3.9 74°F		70	**Silty Clay (CL)** Similar to above, no odor, very dense at base, dry	8
10	10-12'	1300	G/2S 2M/3J		1.5 74°F		50	**Petrified Forest Formation - Mudstone** Very dense, dry/damp, reddish brown, no odor	10
12								Total Depth = 12' BGL	12
14									14
16									16
18									18
20									20
22									22

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LOG OF BORING

Boring No.: SWMU 1-21
Start Date: 10/16/2012 1040
Finish Date: 10/16/2012 1105

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.486' W 108°25.840'

Total Depth: 0.5' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5' &Dup	1105	G/4S 4M/6J		1.4 65°F		100	**Silt (ML)** Fine grain, loose, dry, brown, no odor, gravel at base, refusal at 0.5' bgl	0
								Total Depth = 0.5' BGL	
2									2
4									4
6									6
8									8
10									10
12									12
14									14

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LOG OF BORING

Boring No.: SWMU 1-22
Start Date: 10/16/2012 1110
Finish Date: 10/16/2012 1145

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.494' W 108°25.843'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
0								Ground Surface	0
	0-0.5'	1135	G/2S 2M/3J		4.9 65°F		100	**Fill (Silt)** Low plasticity, fine grain, loose, dry, brown, no odor	
	1.5-2'	1145	G/2S 2M/3J		6.8 65°F		100	**Silty Clay (CL)** Low plasticity, firm, dry to damp, brown, no odor	
2								Total Depth = 2' BGL	2
4									4
6									6
8									8
10									10
12									12

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LOG OF BORING

Boring No.: SWMU 1-23
Start Date: 10/16/2012 1150
Finish Date: 10/16/2012 1210

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.507' W 108°25.840'

Total Depth: 0.5' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
0								Ground Surface	0
	0-0.5'	1210	G/2S 2M/3J		3.7 75°F		100	**Silt/Gravel (ML)** Very fine grain, loose, dry, brown, no odor, refusal at 0.5' bgl in gravel	
								Total Depth = 0.5' BGL	
2									2
4									4
6									6
8									8
10									10
12									12
14									14

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LOG OF BORING

Boring No.: SWMU 1-24
Start Date: 10/8/2012 1300
Finish Date: 10/8/2012 1705

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.514' W 108°25.827'

Total Depth: 34' bgl
Ground Water: Saturated at 24' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5' &Dup	1605	G/4S 4M/6J		4.6 76°F		60	**Silty Clay (CL)** Low plasticity, stiff, dry, brown, gravelly, no odor	0
2	1.5-2'	1615	G/2S 2M/3J		6.4 76°F		60	**Silty Clay (CL)** Similar to above, firm, no odor	2
4					14.4 76°F		80	**Silty Clay (CL)** Low plasticity, soft, damp, reddish brown, faint odor	4
6					22.9 76°F		60	**Silty Clay (CL)** Similar to above, no odor	6
8					13.3 71°F		80	**Silty Clay (CL)** Similar to above, trace gravel, no odor	8
10	10.5-11.5'	1630	G/2S 2M/3J		15.7 71°F		90	**Silty Clay (CL)** Similar to above	10
12					11.7 71°F		60	**Clayey Sand (SC)** Medium grain, compact, damp, brown, no odor, gravelly **Silty Clay (CL)** Low plasticity, soft, damp, reddish brown, no odor	12
14					17.8 71°F		90	**Silty Clay (CL)** Similar to above	14
16	16-18'	1640	G/2S 2M/3J		28 69°F		90	**Silty Clay (CL)** Similar to above **Sandy Clay/Clayey Sand (CL/SC)** Very fine grain, soft, moist, brown, no odor	16
18					27 69°F		90	**Sandy Clay (SC)** Similar to above, moist, odor	18
20					27.1 69°F		90	**Clayey Silt (ML)** Low plasticity, very fine, moist, odor, black discoloration in brown	20
22									22

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LOG OF BORING

Boring No.: SWMU 1-24
Start Date: 10/8/2012 1300
Finish Date: 10/8/2012 1705

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.514' W 108°25.827'

Total Depth: 34' bgl
Ground Water: Saturated at 24' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
24				24' bgl	17.7 69°F		90	**Clayey Silt (ML)** Similar to above, odor and black discoloration more abundant than above	24
26	24-26'	1655	G/2S 2M/3J		19.5 68°F		90	**Clayey Silt/Sand (ML/SC)** Very fine grain, compact, soft, moist to saturated, odor, black	26
28					22.8 68°F		80	**Clayey Silt/Sand (ML/SC)** Similar to above, very moist, stiff and gravelly at base	28
30					16.7 68°F		40	**Clayey Silt (ML)** Low plasticity, very soft, moist, black, odor	30
32					13.2 68°F		90	**Clayey Sand/Gravel (SC)** Medium grain, compact, very dense, moist to damp, black, odor	32
34	32-34'	1705	G/2S 2M/3J		10.9 68°F		90	**Clayey Sand/Gravel (SC)** Very dense, damp to dry, black	34
36								Total Depth = 34' BGL	36
38									38
40									40
42									42
44									44

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.521' W 108°25.826'

Total Depth: 1' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SWMU 1-25
Start Date: 10/16/2012 1240
Finish Date: 10/16/2012 1315

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1300	G/2S 2M/3J		4.1 77°F		100	**Fill (Sand/Gravel (SP))** Fine grain, loose, dry, brown, no odor	0
	0.5-1'	1315	G/2S 2M/3J		4.7 77°F		100	**Fill (Sand/Gravel (SP))** Similar to above, damp, no odor, refusal in gravel at 1' bgl	
2								Total Depth = 1' BGL	2
4									4
6									6
8									8
10									10
12									12
14									14

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.525' W 108°25.817'

Total Depth: 0.5' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SWMU 1-26
Start Date: 10/16/2012 1320
Finish Date: 10/16/2012 1335

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1335	G/2S 2M/3J		6.5 79°F		100	**Fill (Silty Clay and Gravel (CL))** Low plasticity, firm, dry, brown, no odor, refusal at 0.5' bgl in gravel	0
								Total Depth = 0.5' BGL	
2									2
4									4
6									6
8									8
10									10
12									12
14									14

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LOG OF BORING

Boring No.: SWMU 1-27
Start Date: 10/12/2012 0825
Finish Date: 10/12/2012 0915

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.524' W 108°25.808'

Total Depth: 4' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	0900	G/2S 2M/3J		14.5 70°F		90	**Fill (Silty Clay (CL))** Low plasticity, stiff, damp, brown, no odor	0
2	1.5-2'	0915	G/2S 2M/3J		18.2 70°F		90	**Fill (Silty Clay (CL))** Similar to above, no odor	2
4								Total Depth = 4' BGL	4
6									6
8									8
10									10
12									12
14									14
16									16
18									18
20									20
22									22

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.522' W 108°25.797'

Total Depth: 4' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SWMU 1-28
Start Date: 10/12/2012 0920
Finish Date: 10/12/2012 1010

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	0950	G/2S 2M/3J		4.0 76°F		90	**Fill (Silty Clay (CL))** Low plasticity, compact to loose, dry to damp, light brown, no odor	0
2	1.5-2' &Dup	1010	G/4S 4M/6J		4.8 76°F		90	**Clayey Gravelly Sand (SC))** Loose to compact, medium grained sand, light brown, damp, no odor	2
4								Total Depth = 4' BGL	4
6									6
8									8
10									10
12									12
14									14
16									16
18									18
20									20
22									22

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LOG OF BORING

Boring No.: SWMU 1-29
Start Date: 10/16/2012 1420
Finish Date: 10/16/2012 1440

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.522' W 108°25.789'

Total Depth: 0.5' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1440	G/2S 2M/3J		3.6 72°F		100	**Fill (Silty Clay and Gravel (CL))** Low plasticity, stiff, dry, brown, no odor, refusal at 0.5' bgl in gravel	0
								Total Depth = 0.5' BGL	
2									2
4									4
6									6
8									8
10									10
12									12
14									14

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.519' W 108°25.780'

Total Depth: 6' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SWMU 1-30
Start Date: 10/12/2012 1020
Finish Date: 10/12/2012 1210

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1140	G/2S 2M/3J		4.6 70°F		80	**Fill (Silty Clay (CL))** Low plasticity, very stiff, dry to damp, brown, no odor	0
2	1.5-2'	1200	G/2S 2M/3J		6.6 70°F		90	**Fill (Silty Clay (CL))** Similar to above, damp, no odor	2
4	4-6'	1210	G/2S 2M/3J		6.7 70°F		90	**Clayey Sand (SC)** Medium grained, loose, damp, brown	4
6								Total Depth = 6' BGL	6
8									8
10									10
12									12
14									14
16									16
18									18
20									20
22									22

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LOG OF BORING

Boring No.: SWMU 1-31
Start Date: 10/16/2012 1445
Finish Date: 10/16/2012 1500

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.513' W 108°25.778'

Total Depth: 0.5' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
0								Ground Surface	0
	0-0.5'	1500	G/2S 2M/3J		3.9 71°F		100	**Fill (Silty Clay and Gravel (CL))** Low plasticity, stiff, dry, brown, no odor, refusal in gravel at 0.5' bgl	
								Total Depth = 0.5' BGL	
2									2
4									4
6									6
8									8
10									10
12									12

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.506' W 108°25.776'

Total Depth: 0.5' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Boring No.: SWMU 1-32
Start Date: 10/16/2012 1505
Finish Date: 10/16/2012 1540

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
0	0-0.5' &Dup	1540	G/4S 4M/6J		0.7 71°F		100	Ground Surface **Fill (Silty Clay and Gravel (CL))** Low plasticity, stiff, dry, brown, no odor, refusal in gravel at 0.5' bgl Total Depth = 0.5' BGL	0
2									2
4									4
6									6
8									8
10									10
12									12

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LOG OF BORING

Boring No.: SWMU 1-33
Start Date: 10/16/2012 1545
Finish Date: 10/16/2012 1603

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.496' W 108°25.775'

Total Depth: 0.5' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
0								Ground Surface	0
	0-0.5'	1603	G/2S 2M/3J		3.1 70°F		100	**Fill (Silty Clay and Gravel (CL))** Low plasticity, stiff, dry, brown, no odor, refusal in gravel at 0.5' bgl	
								Total Depth = 0.5' BGL	
2									2
4									4
6									6
8									8
10									10
12									12

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LOG OF BORING

Boring No.: SWMU 1-34
Start Date: 10/16/2012 1615
Finish Date: 10/16/2012 1630

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.488' W 108°25.773'

Total Depth: 0.5' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1630	G/2S 2M/3J		3.2 69°F		100	**Fill (Silty Clay and Gravel (CL))** Low plasticity, stiff, dry, brown, no odor, refusal in gravel at 0.5' bgl	0
								Total Depth = 0.5' BGL	
2									2
4									4
6									6
8									8
10									10
12									12

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LOG OF BORING

Boring No.: SWMU 1-35
Start Date: 10/12/2012 1215
Finish Date: 10/12/2012 1310

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.480' W 108°25.772'

Total Depth: 6' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1245	G/2S 2M/3J		0.8 76°F		90	**Fill (Silty Clay (CL))** Low plasticity, firm, damp, brown, no odor, gravelly	0
2	1.5-2'	1300	G/2S 2M/3J		4.7 76°F		90	**Fill (Silty Clay (CL))** Similar to above	2
4	4-6'	1310	G/2S 2M/3J		1.7 76°F		90	**Silty Clay/Clayey Silt (CL/ML)** Low plasticity, soft, damp, brown, no odor	4
6								Total Depth = 6' BGL	6
8									8
10									10
12									12
14									14
16									16
18									18
20									20
22									22

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LOG OF BORING

Boring No.: SWMU 1-36
Start Date: 10/16/2012 1635
Finish Date: 10/16/2012 1700

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.472' W 108°25.770'

Total Depth: 0.5' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
0	0-0.5'	1700	G/2S 2M/3J		1.9 69°F		100	Ground Surface **Fill (Silty Clay and Gravel (CL))** Low plasticity, stiff, dry, brown, no odor, refusal at 0.5' bgl in gravel Total Depth = 0.5' BGL	0
2									2
4									4
6									6
8									8
10									10
12									12
14									14

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LOG OF BORING

Boring No.: SWMU 1-37
Start Date: 10/10/2012 1515
Finish Date: 10/10/2012 1740

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon

Total Depth: 18' bgl
Ground Water: Saturated @ 8.5' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Comments: N 35°29.444' W 108°25.816'; Temporary well (10-15' screen, 9-15' sand, 8-9' hole plug)

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description
								Ground Surface
0	0-0.5'	1700	G/2S 2M/3J		4.9 74°F		40	**Silty Clay (CL)** Low plasticity, stiff, dry, brown, no odor
2	1.5-2'	1715	G/2S 2M/2J		13.6 74°F		40	**Silty Clay (CL)** Low plasticity, soft, damp, reddish brown, no odor
4					12.8 74°F		90	**Silty Clay (CL)** Similar to above, no odor
6					16.6 74°F		40	**Silty Clay/Clay (CL/CH)** Similar to above, becomes a high plastic reddish brown clay, firm, damp, no odor
8	8-8.5'	1730	G/2S 2M/3J	8.5' bgl				
	8.5-9'	1740	G/2S 2M/2J		8.8 74°F		90	**Clay (CH)** High plasticity, firm, damp, reddish brown
10					14.6 73°F		90	**Clayey Sand (SC)** Fine grain, compact, moist to saturated, reddish brown **Clay (CH)** High plasticity, firm, damp, reddish brown, no odor
12	12-13'	1755	G/2S 2M/3J	12' bgl	14.6 73°F			
	13-14'	1805	G/2S 2M/3J		11.4 73°F		90	**Clay (CH)** Similar to above, very stiff **Clayey Silt/Sand (SC)** Very fine grain, loose, brown, saturated, no odor
14					12.3 73°F		90	**Clay (CH)** High plasticity, very stiff, reddish brown, no odor, damp
16							90	**Clay (CH)** Similar to above
18	17-18'	1820	G/2S 2M/3J					**Petrified Forest Formation - Clay/Mudstone (CH)** Similar to above, becomes very dense, dry, trace of gray, no odor
								Total Depth = 18' BGL
20	EB101012	1845						
22								

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LOG OF BORING

Boring No.: SWMU 1-38
Start Date: 10/11/2012 1330
Finish Date: 10/11/2012 1445

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N 35°29.500' W 108°25.841'

Total Depth: 8' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1420	G/2S 2M/3J		10.3 75°F		60	**Silt/Silty Clay (ML/CL)** Low plasticity, soft to very stiff, brown to reddish brown, damp, no odor	0
2	1.5-2'	1430	G/2S 2M/3J		8.5 75°F		60	**Silty Clay (CL)** Similar to above, gravelly, no odor	2
4					8.2 75°F		20	**Silty Clay (CL)** Similar to above, no odor, gravelly	4
6	6-8'	1445	G/2S 2M/3J		11.7 75°F		60	**Petrified Forest Formation - Clay/Mudstone (CH)** Very dense, dry, reddish brown and gray, no odor	6
8								Total Depth = 8' BGL	8
10	EB101112	1545							10
12									12
14									14
16									16
18									18
20									20
22									22

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LOG OF BORING

Boring No.: SWMU 1-39
Start Date: 10/16/2012 1215
Finish Date: 10/16/2012 1235

Client: Western Refining Southwest, Inc.
Site: SWMU No. 1, Gallup Refinery
Job No.: UEC01693
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N 35°29.515' W 108°25.834'

Total Depth: 0.5' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **E**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1235	G/2S 2M/3J		4.4 80°F		100	**Fill (Silt/Gravel (ML))** Low plasticity, very fine grain, loose, dry, brown, no odor, refusal at 0.5' bgl in gravel	0
								Total Depth = 0.5' BGL	
2									2
4									4
6									6
8									8
10									10
12									12

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LOG OF BORING

Boring No.: SWMU 14-1
Start Date: 7/16/2012 14:30
Finish Date: 7/18/2012 13:45

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N35º29.440' W108º25.788'

Total Depth: 50' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.440' **W** 108º25.788'

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1615	G/2E/2M/2J		5.0 85ºF		100	**Fill (Silt/Clay)** Damp to dry, no odor, low plastic clay, brown	0
2	1.5-2'	1620	G/2E/2M/2J		12.6 85ºF				2
					7.2 85ºF		100	**Silty Clay (CL)** Low plasticity, firm, damp, reddish brown, no odor	
4									4
					13.9 85ºF		100	**Silty Clay (CL)** Moderate plasticity, firm to soft, damp, reddish brown, no odor	
6									6
					13.2 85ºF		100	**Silty Clay (CL)** Similar to above, no odor	
8									8
					21.0 85ºF		100	**Clay (CH)** High plasticity, soft, damp, reddish brown, no odor	
10	10-12'	1630	G/2E/2M/2J		105.9 85ºF		100	**Clay (CH)** Similar to above, odor	10
12					12.4 85ºF		100	**Silty Clay (CL)** Moderate plasticity, firm, damp, reddish brown, trace gravel throughout - pebbles, no odor	12
14					10.9 85ºF		80	**Silty Clay (CL)** Similar to above, no odor	14
16					10.9 85ºF		80	**Silty Clay (CL)** Low to moderate plasticity, very stiff, damp, reddish brown, no odor, gravel present	16

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N35º29.440' W108º25.788'

Total Depth: 50' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.440' **W** 108º25.788'

Boring No.: SWMU 14-1
Start Date: 7/16/2012 14:30
Finish Date: 7/18/2012 13:45

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
19					14.9 84ºF		80	**Silty Clay (CL)** Low plasticity, firm, damp to dry, reddish brown and gray, crumbly, no odor	19
21					15.8 84ºF		80	**Silty Clay (CL)** Similar to above	21
23					13.0 84ºF		90	**Silty Clay (CL)** Similar to above	23
25					13.7 84ºF		50	**Silty Clay (CL)** Similar to above	25
27					9.5 84ºF		90	**Silty Clay (CL)** Similar to above	27
29					9.6 84ºF		90	**Silty Clay (CL)** Similar to above	29
31					5.0 83ºF		80	**Silty Clay (CL)** Low plasticity, very stiff, damp to dry, reddish brown and gray, no odor	31
33					10.3 83ºF		90	**Silty Clay (CL)** Similar to above, reddish brown, no odor	33
35					9.9 83ºF		90	**Silty Clay (CL)** Similar to above, reddish brown and gray, no odor	35

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LOG OF BORING

Boring No.: SWMU 14-1
Start Date: 7/16/2012 14:30
Finish Date: 7/18/2012 13:45

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N35º29.440' W108º25.788'

Total Depth: 50' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.440' **W** 108º25.788'

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
37					3.0 83ºF		50	**Sandstone/Silty Sand (SS)** Fine grain, poorly cemented, reddish brown, dry to damp, no odor	37
9					8.2 83ºF		90	**Silty Clay (CL)** Low plasticity, stiff, damp, reddish brown, no odor, gray mottling	39
41					2.1 86ºF		90	**Clay (CL)** Low plasticity, very stiff, dry to damp, reddish brown, no odor	41
43					3.1 86ºF		60	**Clay (CL)** Similar to above	43
45					4.0 86ºF		70	**Clay (CL)** Similar to above, reddish brown and gray	45
47					4.3 86ºF		70	**Clay (CL)** Similar to above	47
49	48- 50'	7/18 1345	G/2E/ 2V/2J		3.2 86ºF		80	**Clay (CL)** Similar to above	49
51								Total Depth = 50' BGL	51
53									53

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WELL CONSTRUCTION

Well No.: OAPIS-1 (SWMU 14-2)

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon

Total Depth: 26' bgl
Ground Water: Saturated @ 18' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.442' **W** 108º25.781'

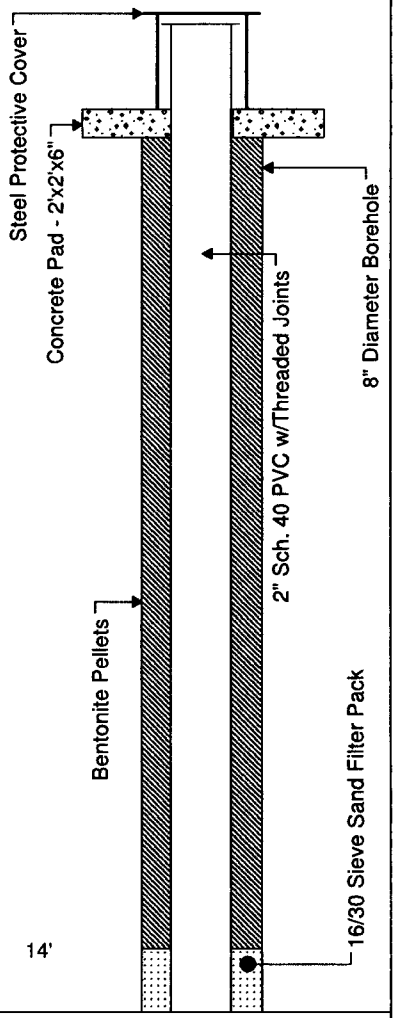
Start Date: 7/17/2012 14:30
Finish Date: 7/17/2012 17:30

Comments: N35º29.442' W108º25.781'; Samples collected 7/19/2012 (SWMU 14-2 GW 1000, FB071712 1800, EB071712 1815)

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/Container/No	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description
0	0-0.5'	1610	G/2E/2V/2J		2.9 83ºF		100	**Fill (Clay/Gravel)** Brown, dry to damp, no odor
2	1.5-2'	1624	G/2E/2V/2J		280 83ºF		100	**Clay (CH)** Moderate plasticity, firm, damp, black and brown, odor
4					56.8 83ºF		90	**Silty Clay (CL)** Low plasticity, firm, damp, brown grading to black at 4' bgl, faint odor
6					69.4 83ºF		90	**Silty Clay (CL)** Similar to above, brown and black, trace sand, odor
8					87.5 83ºF		90	**Silty Clay (CL)** Similar to above, odor
10	8-10' &Dup	1645	G/4E/4V/4J		330 83ºF		90	**Silty Clay (CL)** Low plasticity, very soft, damp, dark brown and black, odor
12					294 83ºF		80	**Silty Clay (CL)** Similar to above
14					14.6 83ºF		70	**Silty Clay (CL)** Similar to above, faint odor
							70	**Clay (CH)** Moderate plasticity, stiff, damp, reddish brown, no odor

Ground Surface

Completion Results



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WELL CONSTRUCTION

Well No.: OAPIS-1 (SWMU 14-2)

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon

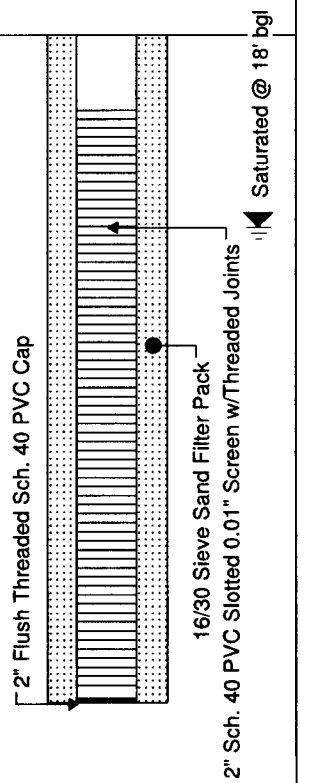
Total Depth: 26' bgl
Ground Water: Saturated @ 18' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.442' **W** 108º25.781'

Start Date: 7/17/2012 14:30
Finish Date: 7/17/2012 17:30

Comments: N35º29.442' W108º25.781'; Samples collected 7/19/2012 (SWMU 14-2 GW 1000, FB071712 1800, EB071712 1815)

Depth (ft.)	Sample Depth	Time	Sample Type/Container/No	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description
16					5.7 86ºF		90	**Clay (CH)** Similar to above, no odor
	16-18'	1710	G/2E/2V/2J	▼ 18'	10.7 86ºF		80	**Clay (CH)** Similar to above, no odor
18					--		90	**Clay (CH)** Similar to above, water in split spoon
20					--			
					17.9 83ºF		80	**Clay (CH)** Similar to above
22					12.8 83ºF		90	**Clay (CH)** Similar to above, gray and reddish brown, no odor
24	24-25'	1730	G/2E/2V/2J		13.2 83ºF		70	**Clay (CH)** Similar to above
							-	**Clay (CH)** Similar to above
26								Total Depth = 26' BGL
28								
30								
32								

Completion Results



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LOG OF BORING

Boring No.: SWMU 14-3
Start Date: 7/18/2012 08:40
Finish Date: 7/18/2012 12:45

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N35º29.444' W108º25.779'

Total Depth: 26' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.444' **W** 108º25.779'

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1125	G/2E/2V/2J		14.3 83ºF		90	**Fill (Silt/Clay/Gravel)** Damp to dry, brown, no odor	0
2	1.5-2'	1200	G/2E/2V/2J		6.2 83ºF				2
					101 83ºF		70	**Silty Clay (CL)** Low plasticity, firm, damp, brown, odor, black discoloration, gravelly	
4									4
					122 83ºF		80	**Silty Clay (CL)** Similar to above, odor, soft	
6									6
					104 83ºF		70	**Silty Clay (CL)** Similar to above, odor	
8	8-10'	1215	G/2E/2V/2J		343 83ºF		80	**Silty Clay (CL)** Similar to above, strong odor	8
10					155 83ºF		70	**Silty Clay (CL)** Similar to above, odor	10
12	12-14'	1230	G/2E/2V/2J	▼ 14'	326 83ºF		80	**Silty Clay (CL)** Similar to above, odor	12
14					-- --		90	**Clay (CH)** Moderate plasticity, firm, saturated - water in spoon, reddish brown, gravelly at top, odor	14
16					-- --		--	**Clay (CH)** Similar to above, damp	16

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N35º29.444' W108º25.779'

Total Depth: 26' bgl
Ground Water: Saturated @ 14' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.444' **W** 108º25.779'

Boring No.: SWMU 14-3
Start Date: 7/18/2012 08:40
Finish Date: 7/18/2012 12:45

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
19					--		--	**Clay (CH)** Similar to above	19
21					-- 8.5 83ºF		80	**Clay (CH)** High plasticity, very stiff, damp, reddish brown, no odor	21
23					5.4 83ºF		90	**Clay (CH)** Similar to above, reddish brown and gray, no odor	23
25	25.5-26'	1245	G/2E/ 2V/2J		2.3 83ºF		90	**Silty Clay (CL)** Low plasticity, firm, damp, brown, no odor	25
27								Total Depth = 26' BGL	27
29									29
31									31
33									33
35									35

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N35º29.439' W108º25.782'

Total Depth: 20' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.439' **W** 108º25.782'

Boring No.: SWMU 14-4
Start Date: 7/17/2012 12:30
Finish Date: 7/17/2012 14:15

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1318	G/2E/2V/2J		5.9 87ºF		90	**Fill (Gravel/Clay)** Damp, brown, no odor	0
2	1.5-2'	1330	G/2E/2V/2J		6.2 87ºF				2
					28.2 87ºF		90	**Silty Clay (CL)** Low plasticity, firm to soft, damp, brown, no odor	
4									4
					23.1 87ºF		90	**Silty Clay (CL)** Similar to above, no odor	
6									6
					19.2 87ºF		90	**Silty Clay (CL)** Similar to above, odor	
8									8
					581 87ºF		90	**Silty Clay (CL)** Moderate plasticity, soft, damp, brown and black, odor	
10	10-12'	1400	G/2E/2V/2J		711 87ºF		90	**Silty Clay (CL)** Similar to above, odor, brown	10
12									12
					34.5 87ºF		90	**Silty Clay (CL)** Similar to above, faint odor, gravel present	
14									14
					8.7 84ºF		100	**Clay (CH)** Moderate plasticity, stiff, damp, reddish brown, no odor	
16									16
					6.5 84ºF		90	**Clay (CH)** Similar to above, very stiff, no odor	

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LOG OF BORING

Boring No.: SWMU 14-4
Start Date: 7/17/2012 12:30
Finish Date: 7/17/2012 14:15

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N35º29.439' W108º25.782'

Total Depth: 20' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.439' **W** 108º25.782'

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
19	19.5-20'	1415	G/2E/2V/2J		2.5 84ºF	CH	90	**Clay (CH)** Similar to above, no odor	19
								Total Depth = 20' BGL	
21									21
23									23
25									25
27									27
29									29
31									31
33									33
35									35

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LOG OF BORING

Boring No.: SWMU 14-5
Start Date: 7/19/2012 14:25
Finish Date: 7/19/2012 15:15

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N35º29.441' W108º25.776'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.441' **W** 108º25.776'

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
0								Ground Surface	0
0	0-0.5' &Dup	1500	G/4E/4V/4J		5.7 80ºF		100	**Fill (Gravel/Clay)** Damp, reddish brown, no odor	0
2	1.5-2'	1506	G/2E/2V/2J		7.4 80ºF			Total Depth = 2' BGL	2
4									4
6									6
8									8
10									10
12									12
14									14
16									16

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LOG OF BORING

Boring No.: SWMU 14-6
Start Date: 10/9/2012 1200
Finish Date: 10/9/2012 1415

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N35º29.436' W108º25.781'

Total Depth: 18' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **W**

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1335	G/2S 2M/3J		0.7 69ºF		90	**Silty Clay (CL)** Low plasticity, stiff, dry to damp, brown, no odor	0
2	1.5-2'	1345	G/2S 2M/3J		3.9 69ºF		80	**Silty Clay (CL)** Similar to above, no odor	2
4					306 69ºF		70	**Silty Clay (CL)** Low plasticity, soft, damp, brown, odor, black staining	4
6					364 69ºF		70	**Silty Clay (CL)** Similar to above, odor	6
8					345 69ºF		80	**Clay (CH)** High plasticity, firm, damp, brown, odor	8
10	10-12'	1355	G 2M/3J		367 69ºF		80	**Clay (CH)** Similar to above, odor	10
12					13.6 69ºF		70	**Clay (CH)** Similar to above, dry, crumbly, odor, less intense to almost faint	12
14					10.5 69ºF		30	**Clay (CH)** High plasticity, very stiff/dense, dry to damp, no odor	14
16					4.6 70ºF		60	**Clay (CH)** High plasticity, very stiff/dense, dry to damp, no odor, reddish brown	16
18	17-18'	1410	G/2S 2M/3J					Total Depth = 18' BGL	18

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N35º29.437' W108º25.778'

Total Depth: 24' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.437' **W** 108º25.778'

Boring No.: SWMU 14-7
Start Date: 7/18/2012 17:25
Finish Date: 7/18/2012 19:20

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1830	G/2E/2V/2J		141 81ºF		90	**Fill (Gravel/Clay)** Brown, damp, faint odor	0
	1.5-2'	1850	G/2E/2V/2J		197 81ºF				
2					293 81ºF		90	**Silty Clay (CL)** Low plasticity, firm, damp, brown, odor, gravelly	2
4					365 81ºF		90	**Silty Clay (CL)** Similar to above, strong odor	4
6	6-8'	1910	G/2E/2V/2J		935 81ºF		90	**Clay (CH)** High plasticity, stiff, damp, reddish brown, odor	6
8					649 84ºF		90	**Clay (CH)** Similar to above, dry, crumbly, calcareous, odor	8
10					-- --		--	**Clay (CH)** Similar to above, no recovery	10
12					265 84ºF		90	**Clay (CH/CL)** Similar to above, becomes gray and sandy at base, odor	12
14					108 84ºF		90	**Clay (CH)** High plasticity, very stiff, dry, brown with greenish gray sand in seams, odor	14
16					74 86ºF		60	**Clayey Sand (SC)** Fine grain, loose, damp, greenish gray, odor	16

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N35º29.437' W108º25.778'

Total Depth: 24' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.437' **W** 108º25.778'

Boring No.: SWMU 14-7
Start Date: 7/18/2012 17:25
Finish Date: 7/18/2012 19:20

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
19					9.9 87ºF		70	**Clayey Sand/Sandy Clay (SC/CL)** Similar to above, trace CH reddish brown clay at base, no odor	19
21					3.2 87ºF		95	**Clay (CH)** High plasticity, very stiff, dry to damp, reddish brown, no odor	21
23	23.5-24'	1920	G/2E/ 2V/2J		3.3 87ºF		80	**Clay (CH)** Similar to above	23
								Total Depth = 24' BGL	
25									25
27									27
29									29
31									31
33									33
35									35

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LOG OF BORING

Boring No.: SWMU 14-8
Start Date: 7/19/2012 11:15
Finish Date: 7/19/2012 11:45

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N35º29.445' W108º25.766'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.445' **W** 108º25.766'

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1127	G/2E/2V/2J		8.2 82ºF		100	**Fill (Gravel/Clay/Sand)** Dry to damp, brown to black, odor	0
2	1.5-2' &Dup	1140	G/4E/4V/4J		3717 82ºF			Total Depth = 2' BGL	2
4									4
6									6
8									8
10									10
12									12
14									14
16									16

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LOG OF BORING

Boring No.: SWMU 14-9
Start Date: 7/18/2012 14:00
Finish Date: 7/18/2012 17:15

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N35º29.446' W108º25.757'

Total Depth: 14' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.446' **W** 108º25.757'

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5' &Dup	1620	G/4E/4V/2J		4.9 74ºF		100	**Fill (Silt/Gravel)** Loose, dry, brown	0
	1.5-2'	1630	G/2E/2V/2J		106 74ºF		90	**Fill (Clay)** Low plasticity, soft, damp, brown, odor	
2					1712 74ºF		70	**Fill (Clay)** Similar to above, strong odor, damp	2
4	4-6'	1640	G/2E/2V/2J		1959 74ºF		90	**Sandy Clay (CL)** Moderate to low plasticity, firm to soft, dark brown, damp, strong odor	4
6					582 74ºF		90	**Sandy Clay (CL)** Similar to above, odor	6
8					10.9 74ºF		90	**Silty Clay (CL)** Low to moderate plasticity, firm, damp, brown, no odor	8
10					11.3 74ºF		90	**Clay (CH)** High plasticity, stiff, damp, brown, no odor	10
12							90	**Clay (CH)** Similar to above, no odor	12
	13-14'	1700	G/2E/2V/2J		10.8 74ºF		90	**Silty Clay (CL)** Low plasticity, stiff, damp, brown, no odor	
14								Total Depth = 14' BGL	14
16									16

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LOG OF BORING

Boring No.: SWMU 14-10
Start Date: 7/19/2012 10:20
Finish Date: 7/19/2012 11:10

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N35º29.443' W108º25.772'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.443' **W** 108º25.772'

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1100	G/2E/2V/2J		0.3 80ºF		100	**Fill (Gravel/Clay)** Dry, brown, no odor	0
2	1.5-2'	1105	G/2E/2V/2J		0.4 80ºF			Total Depth = 2' BGL	2
4									4
6									6
8									8
10									10
12									12
14									14
16									16

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LOG OF BORING

Boring No.: SWMU 14-11
Start Date: 7/19/2012 13:20
Finish Date: 7/19/2012 13:55

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N35º29.447' W108º25.755'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.447' **W** 108º25.755'

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1333	G/2E/2V/2J		5.3 80ºF		100	**Fill (Gravel/Clay)** Damp, brown, no odor	0
2	1.5-2'	1338	G/2E/2V/2J		38.5 80ºF			Total Depth = 2' BGL	2
4									4
6									6
8									8
10									10
12									12
14									14
16									16

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LOG OF BORING

Boring No.: SWMU 14-12
Start Date: 7/19/2012 12:00
Finish Date: 7/19/2012 12:20

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N35º29.441' W108º25.768'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.441' **W** 108º25.768'

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1205	G/2E/2V/2J		949 84ºF		100	**Clay (CH)** High plasticity, soft, damp, brown to black, strong odor	0
2	1.5-2'	1212	G/2E/2V/2J		1094 84ºF			Total Depth = 2' BGL	2
4									4
6									6
8									8
10									10
12									12
14									14
16									16

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LOG OF BORING

Boring No.: SWMU 14-13
Start Date: 7/19/2012 12:20
Finish Date: 7/19/2012 12:50

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N35º29.442' W108º25.762'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.442' **W** 108º25.762'

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
0								Ground Surface	0
	0-0.5'	1236	G/2E/2V/2J		300 87ºF		100	**Clay (CH)** High plasticity, soft, damp, dark brown to black, odor, sand lense from 0.75 to 1.25' bgl	
2	1.5-2'	1245	G/2E/2V/2J		975 87ºF			Total Depth = 2' BGL	2
4									4
6									6
8									8
10									10
12									12
14									14
16									16

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N35º29.444' W108º25.757'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.444' **W** 108º25.757'

Boring No.: SWMU 14-14
Start Date: 7/19/2012 12:55
Finish Date: 7/19/2012 13:20

Depth (ft.)	Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1307	G/2E/2V/2J		567 80ºF		100	**Clay (CL)** Low plasticity, soft, damp, dark brown, odor	0
2	1.5-2'	1312	G/2E/2V/2J		1028 80ºF		100	**Clayey Sand (SC)** Fine grain, compact, damp, black, odor	2
								Total Depth = 2' BGL	
4									4
6									6
8									8
10									10
12									12
14									14
16									16

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LOG OF BORING

Boring No.: SWMU 14-15
Start Date: 7/19/2012 17:00
Finish Date: 7/19/2012 17:20

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N35º29.438' W108º25.767'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.438' **W** 108º25.767'

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1714	G/2E/2V/1J		2.8 84ºF		100	**Fill (Gravel/Sand)** Red sand, damp, no odor	0
2	1.5-2'	1719	G/2E/2V/1J		5000 84ºF		100	**Clayey Sand (SC)** Fine grain, compact, damp, gray to black, strong odor	2
								Total Depth = 2' BGL	
4									4
6									6
8									8
10									10
12									12
14									14
16									16

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LOG OF BORING

Boring No.: SWMU 14-16
Start Date: 7/19/2012 16:30
Finish Date: 7/19/2012 17:00

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N35º29.442' W108º25.763'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.442' **W** 108º25.763'

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1645	G/2E/2V/1J		10.8 86ºF		100	**Fill (Silt/Sand)** Very fine grain, loose, damp, brown	0
2	1.5-2'	1651	G/2E/2V/1J		375.5 86ºF		100	**Clay (CH)** High plasticity, soft, damp, brown and black, odor	2
								Total Depth = 2' BGL	
4									4
6									6
8									8
10									10
12									12
14									14
16									16

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N35º29.442' W108º25.756'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.442' **W** 108º25.756'

Boring No.: SWMU 14-17
Start Date: 7/19/2012 15:45
Finish Date: 7/19/2012 16:30

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1611	G/2E/2V/1J		10.9 86ºF		100	**Fill (Clay/Silt)** Damp, brown, no odor	0
2	1.5-2'	1618	G/2E/2V/1J		898 86ºF		100	**Clay (CH)** High plasticity, soft, damp, brown to black, odor, oily	2
								Total Depth = 2' BGL	
4									4
6									6
8									8
10									10
12									12
14									14
16									16

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LOG OF BORING

Boring No.: SWMU 14-18
Start Date: 7/19/2012 13:55
Finish Date: 7/19/2012 14:25

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N35º29.445' W108º25.751'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.445' **W** 108º25.751'

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1408	G/2E/2V/2J		5.0 80ºF		100	**Fill (Silt/Sand/Gravel)** Damp, brown, no odor	0
2	1.5-2'	1415	G/2E/2V/2J		2537 80ºF		100	**Clayey Sand** Fine grain sand, compact, damp, black, strong odor	2
								Total Depth = 2' BGL	

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LOG OF BORING

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N35º29.445' W108º25.744'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.445' **W** 108º25.744'

Boring No.: SWMU 14-19
Start Date: 7/19/2012 15:15
Finish Date: 7/19/2012 15:45

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1526	G/2E/2V/2J		4.4 86ºF		100	**Fill (Silt/Sand Clay)** Damp, reddish brown, no odor	0
2	1.5-2'	1533	G/2E/2V/2J		5.1 86ºF			Total Depth = 2' BGL	2
4									4
6									6
8									8
10									10
12									12
14									14
16									16

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LOG OF BORING

Boring No.: SWMU 14-20
Start Date: 7/19/2012 17:20
Finish Date: 7/19/2012 17:55

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket

Total Depth: 1' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N 35º29.436' **W** 108º25.739'

Comments: N35º29.436' W108º25.739'; Blank samples collected 7/19/2012 (FB071912 @1800, EB071912 @1815)

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5' &Dup	1750	G/4E/ 4V/2J		2.0 84ºF		100	**Fill (Gravel/Sand)** Compacted, very dense, dry, brown, no odor	0
								Total Depth = 1' BGL	
2									2
								Refusal at 1' bgl, no sample	
4									4
6									6
8									8
10									10
12									12
14									14
16									16

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LOG OF BORING

Boring No.: SWMU 14-21
Start Date: 10/9/2012 1445
Finish Date: 10/9/2012 1600

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N35º29.431' W108º25.765'

Total Depth: 10' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **W**

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1535	G/2S 2M/3J		10.5 71ºF		40	**Silty Clay (CL)** Low plasticity, stiff, dry to damp, brown, no odor	0
2	1.5-2'	1545	G/2S 2M/3J		4.6 71ºF		40	**Silty Clay (CL)** Similar to above	2
4					8.6 71ºF		90	**Silty Clay (CL)** Low plasticity, soft, damp, brown, no odor	4
6					7.6 71ºF		90	**Silty Clay (CL)** Similar to above	6
8	8-10'	1600	G/2S 2M/3J		4.5 71ºF		90	**Silty Clay (CL)** Similar to above	8
10								Total Depth = 10' BGL	10
12									12
14									14
16									16

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LOG OF BORING

Boring No.: SWMU 14-22
Start Date: 10/9/2012 1610
Finish Date: 10/9/2012 1730

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon
Comments: N35º29.432' W108º25.758'

Total Depth: 10' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **W**

Depth (ft.)	Sampling: Sample Depth	Time	Sample Type/ Container/No.	Saturation	Organic Vapor (ppm)	USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1645	G/2S 2M/3J		2.9 70ºF		70	**Silty Clay (CL)** Low plasticity, stiff, dry, brown, no odor	0
2	1.5-2'	1655	G/2S 2M/3J		7.3 70ºF		40	**Silty Clay (CL)** Similar to above	2
4	4-6' &Dup	1720	G/4S 4M/6J		7.9 70ºF		90	**Silty Clay (CL)** Low plasticity, soft, damp, brown, no odor	4
6					7.3 70ºF		80	**Silty Clay (CL)** Similar to above	6
8	8-10'	1730	G/2S 2M/3J		4.9 70ºF		90	**Silty Clay (CL)** Moderate plasticity, very soft, damp, reddish brown, no odor	8
10								Total Depth = 10' BGL	10
12									12
14									14
16									16

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LOG OF BORING

Boring No.: SWMU 14-23
Start Date: 10/10/2012 1145
Finish Date: 10/10/2012 1415

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon

Total Depth: 22' bgl
Ground Water: Saturated @ 16' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **W**

Comments: N35º29.449' W108º25.749'; Temporary well set from 15-20' bgl

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
								Ground Surface	
0	0-0.5'	1345	G/2S 2M/3J		11 77ºF		70	**Fill (Silty Clay (CL))** Low plasticity, stiff, dry, brown, no odor	0
2	1.5-2'	1355	G/2S 2M/3J		14.8 77ºF		70	**Fill (Silty Clay (CL))** Similar to above	2
4					13.6 77ºF		90	**Fill (Silty Clay (CL))** Similar to above	4
6					385 77ºF		90	**Clayey Silt/Sand (SC)** Fine grain, loose, damp, brown, odor	6
8					112 77ºF		60	**Silty Clay (CL)** Moderate plasticity, soft, damp, odor, brown	8
10					315 76ºF		90	**Silty Clay (CH)** High plasticity, soft, damp, brown, odor	10
12	12-14'	1405	G/ 2M/3J		398 76ºF		90	**Silty Clay (CH)** Similar to above, odor	12
14	14-16'	1415	G/2S 2M/3J	▼ 16'	52 76ºF		90	**Clay (CH)** Similar to above, odor	14
16					120 75ºF		50	**Sandy Clay (CL)** Moderate plasticity, very dense, damp, brown, odor, water in spoon, soupy	16

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LOG OF BORING

Boring No.: SWMU 14-23
Start Date: 10/10/2012 1145
Finish Date: 10/10/2012 1415

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: Enviro-Drill, Inc.
Drilling Rig: CME 75
Drilling Method: Hollow-Stem Auger
Sampling Method: Split Spoon

Total Depth: 22' bgl
Ground Water: Saturated @ 16' bgl
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **W**

Comments: N35º29.449' W108º25.749'; Temporary well set from 15-20' bgl

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
19							--	No Recovery	19
21							--	No Recovery	21
23								Total Depth = 22' BGL	23
25									25
27									27
29									29
31									31
33									33
35									35

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LOG OF BORING

Boring No.: SWMU 14-24
Start Date: 10/17/2012 0940
Finish Date: 10/17/2012 1030

Client: Western Refining Southwest, Inc.
Site: SWMU No. 14 - Gallup Refinery
Job No.: UEC01655
Geologist: Tracy Payne
Driller: --
Drilling Rig: --
Drilling Method: Hand Auger
Sampling Method: Auger Bucket
Comments: N35º29.438' W108º25.751'

Total Depth: 2' bgl
Ground Water: Not Encountered
Elev., TOC (ft. msl): --
Elev., PAD (ft. msl): --
Elev., GL (ft. msl): --
Site Coordinates:
N **W**

Depth (ft.)	Sampling: Sample Depth	Sampling: Time	Sampling: Sample Type/ Container/No.	Sampling: Saturation	Sampling: Organic Vapor (ppm)	Sampling: USCS Class	Recovery (%)	Sample Description	Depth (ft.)
0								Ground Surface	0
0	0-0.5'	1015	G/2S 2M/3J		3.0 60ºF		100	**Silty Clay (CL)** Low plasticity, firm, dry to damp, brown, no odor	0
2	1.5-2'	1030	G/2S 2M/3J		4.0 60ºF			Total Depth = 2' BGL	2
4									4
6									6
8									8
10									10
12									12
14									14
16									16

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INVESTIGATION REPORT

Solid Waste Management Unit (SWMU) No. 1 Aeration Basin and SWMU No. 14 Old API Separator

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

EPA ID# NMD000333211

Volume 3 of 3
(Appendices E and F)

February 2013

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Appendix E

Analytical Data Reports

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

November 14, 2012

Scott Crouch

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.1

OrderNo.: 1210279

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 13 sample(s) on 10/4/2012 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued October 29, 2012.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1210279**
Date Reported: **11/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-2 (6-8')
Collection Date: 10/2/2012 10:00:00 AM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/7/2012 12:39:13 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/7/2012 12:39:13 AM
Surr: DNOP	89.9	77.6-140		%REC	1	10/7/2012 12:39:13 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2012 3:27:07 AM
Surr: BFB	102	84-116		%REC	1	10/6/2012 3:27:07 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 10:23:08 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	10/17/2012 10:26:45 AM
Arsenic	ND	5.0		mg/Kg	2	10/17/2012 10:26:45 AM
Barium	39	0.20		mg/Kg	2	10/17/2012 10:26:45 AM
Beryllium	0.61	0.30		mg/Kg	2	10/17/2012 10:26:45 AM
Cadmium	ND	0.20		mg/Kg	2	10/17/2012 10:26:45 AM
Chromium	8.1	0.60		mg/Kg	2	10/17/2012 10:26:45 AM
Cobalt	3.9	0.60		mg/Kg	2	10/17/2012 10:26:45 AM
Iron	12000	500		mg/Kg	500	10/17/2012 12:52:55 PM
Lead	3.5	0.50		mg/Kg	2	10/17/2012 10:26:45 AM
Manganese	230	0.50		mg/Kg	5	10/17/2012 12:50:30 PM
Nickel	6.0	1.0		mg/Kg	2	10/17/2012 10:26:45 AM
Selenium	ND	5.0		mg/Kg	2	10/23/2012 6:37:37 PM
Silver	ND	0.50		mg/Kg	2	10/17/2012 10:26:45 AM
Vanadium	16	5.0		mg/Kg	2	10/17/2012 10:26:45 AM
Zinc	16	5.0		mg/Kg	2	10/17/2012 10:26:45 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Aniline	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Anthracene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Azobenzene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/9/2012 1:19:59 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-2 (6-8')
Collection Date: 10/2/2012 10:00:00 AM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/9/2012 1:19:59 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Carbazole	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 1:19:59 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/9/2012 1:19:59 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/9/2012 1:19:59 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Chrysene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/9/2012 1:19:59 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/9/2012 1:19:59 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/9/2012 1:19:59 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 1:19:59 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/9/2012 1:19:59 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 1:19:59 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/9/2012 1:19:59 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 1:19:59 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 1:19:59 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Fluorene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Isophorone	ND	0.50		mg/Kg	1	10/9/2012 1:19:59 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/9/2012 1:19:59 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Naphthalene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-2 (6-8')
Collection Date: 10/2/2012 10:00:00 AM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 1:19:59 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/9/2012 1:19:59 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/9/2012 1:19:59 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/9/2012 1:19:59 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Phenol	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Pyrene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Pyridine	ND	0.50		mg/Kg	1	10/9/2012 1:19:59 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 1:19:59 PM
Surr: 2,4,6-Tribromophenol	69.4	21.3-145		%REC	1	10/9/2012 1:19:59 PM
Surr: 2-Fluorobiphenyl	67.8	20-131		%REC	1	10/9/2012 1:19:59 PM
Surr: 2-Fluorophenol	70.2	11.9-130		%REC	1	10/9/2012 1:19:59 PM
Surr: 4-Terphenyl-d14	59.7	25.1-149		%REC	1	10/9/2012 1:19:59 PM
Surr: Nitrobenzene-d5	70.7	25.6-137		%REC	1	10/9/2012 1:19:59 PM
Surr: Phenol-d5	71.6	20.3-132		%REC	1	10/9/2012 1:19:59 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
Toluene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
Ethylbenzene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
Naphthalene	ND	0.10		mg/Kg	1	10/10/2012 11:09:51 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 11:09:51 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 11:09:51 AM
Acetone	ND	0.75		mg/Kg	1	10/10/2012 11:09:51 AM
Bromobenzene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
Bromodichloromethane	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
Bromoform	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
Bromomethane	ND	0.15		mg/Kg	1	10/10/2012 11:09:51 AM
2-Butanone	ND	0.50		mg/Kg	1	10/10/2012 11:09:51 AM
Carbon disulfide	ND	0.50		mg/Kg	1	10/10/2012 11:09:51 AM
Carbon tetrachloride	ND	0.10		mg/Kg	1	10/10/2012 11:09:51 AM
Chlorobenzene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
Chloroethane	ND	0.10		mg/Kg	1	10/10/2012 11:09:51 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-2 (6-8')
Collection Date: 10/2/2012 10:00:00 AM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
Chloromethane	ND	0.15		mg/Kg	1	10/10/2012 11:09:51 AM
2-Chlorotoluene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
4-Chlorotoluene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
cis-1,2-DCE	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	10/10/2012 11:09:51 AM
Dibromochloromethane	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
Dibromomethane	ND	0.10		mg/Kg	1	10/10/2012 11:09:51 AM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	10/10/2012 11:09:51 AM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	10/10/2012 11:09:51 AM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	10/10/2012 11:09:51 AM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	10/10/2012 11:09:51 AM
2-Hexanone	ND	0.50		mg/Kg	1	10/10/2012 11:09:51 AM
Isopropylbenzene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	10/10/2012 11:09:51 AM
Methylene chloride	ND	0.15		mg/Kg	1	10/10/2012 11:09:51 AM
n-Butylbenzene	ND	0.15		mg/Kg	1	10/10/2012 11:09:51 AM
n-Propylbenzene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
sec-Butylbenzene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
Styrene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
tert-Butylbenzene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
trans-1,2-DCE	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	10/10/2012 11:09:51 AM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	10/10/2012 11:09:51 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-2 (6-8')
Project: SWMU NO.1
Collection Date: 10/2/2012 10:00:00 AM
Lab ID: 1210279-001 **Matrix:** SOIL **Received Date:** 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	0.050		mg/Kg	1	10/10/2012 11:09:51 AM
Xylenes, Total	ND	0.10		mg/Kg	1	10/10/2012 11:09:51 AM
Surr: 1,2-Dichloroethane-d4	91.3	70-130		%REC	1	10/10/2012 11:09:51 AM
Surr: 4-Bromofluorobenzene	72.3	70-130		%REC	1	10/10/2012 11:09:51 AM
Surr: Dibromofluoromethane	93.5	70-130		%REC	1	10/10/2012 11:09:51 AM
Surr: Toluene-d8	73.7	70-130		%REC	1	10/10/2012 11:09:51 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-2 (10-11')
Project: SWMU NO.1
Collection Date: 10/2/2012 10:20:00 AM
Lab ID: 1210279-002
Matrix: SOIL
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/7/2012 1:04:03 AM
Motor Oil Range Organics (MRO)	ND	52		mg/Kg	1	10/7/2012 1:04:03 AM
Surr: DNOP	88.0	77.6-140		%REC	1	10/7/2012 1:04:03 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2012 3:55:52 AM
Surr: BFB	101	84-116		%REC	1	10/6/2012 3:55:52 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 10:25:42 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	10/17/2012 10:31:47 AM
Arsenic	ND	5.0		mg/Kg	2	10/17/2012 10:31:47 AM
Barium	220	0.50		mg/Kg	5	10/17/2012 12:55:32 PM
Beryllium	0.74	0.30		mg/Kg	2	10/17/2012 10:31:47 AM
Cadmium	ND	0.20		mg/Kg	2	10/17/2012 10:31:47 AM
Chromium	6.0	0.60		mg/Kg	2	10/17/2012 10:31:47 AM
Cobalt	3.3	0.60		mg/Kg	2	10/17/2012 10:31:47 AM
Iron	11000	500		mg/Kg	500	10/17/2012 12:59:38 PM
Lead	3.9	0.50		mg/Kg	2	10/17/2012 10:31:47 AM
Manganese	310	1.0		mg/Kg	10	10/23/2012 6:42:27 PM
Nickel	5.6	1.0		mg/Kg	2	10/17/2012 10:31:47 AM
Selenium	ND	5.0		mg/Kg	2	10/23/2012 6:40:01 PM
Silver	ND	0.50		mg/Kg	2	10/17/2012 10:31:47 AM
Vanadium	12	5.0		mg/Kg	2	10/17/2012 10:31:47 AM
Zinc	13	5.0		mg/Kg	2	10/17/2012 10:31:47 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Aniline	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Anthracene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Azobenzene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/9/2012 3:20:37 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-2 (10-11')
Project: SWMU NO.1
Collection Date: 10/2/2012 10:20:00 AM
Lab ID: 1210279-002 **Matrix:** SOIL **Received Date:** 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/9/2012 3:20:37 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Carbazole	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 3:20:37 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/9/2012 3:20:37 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/9/2012 3:20:37 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Chrysene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/9/2012 3:20:37 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/9/2012 3:20:37 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/9/2012 3:20:37 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 3:20:37 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/9/2012 3:20:37 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 3:20:37 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/9/2012 3:20:37 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 3:20:37 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 3:20:37 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Fluorene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Isophorone	ND	0.50		mg/Kg	1	10/9/2012 3:20:37 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/9/2012 3:20:37 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Naphthalene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-2 (10-11')
Collection Date: 10/2/2012 10:20:00 AM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 3:20:37 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/9/2012 3:20:37 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/9/2012 3:20:37 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/9/2012 3:20:37 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Phenol	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Pyrene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Pyridine	ND	0.50		mg/Kg	1	10/9/2012 3:20:37 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 3:20:37 PM
Surr: 2,4,6-Tribromophenol	63.6	21.3-145		%REC	1	10/9/2012 3:20:37 PM
Surr: 2-Fluorobiphenyl	52.6	20-131		%REC	1	10/9/2012 3:20:37 PM
Surr: 2-Fluorophenol	56.4	11.9-130		%REC	1	10/9/2012 3:20:37 PM
Surr: 4-Terphenyl-d14	54.0	25.1-149		%REC	1	10/9/2012 3:20:37 PM
Surr: Nitrobenzene-d5	57.1	25.6-137		%REC	1	10/9/2012 3:20:37 PM
Surr: Phenol-d5	61.4	20.3-132		%REC	1	10/9/2012 3:20:37 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Toluene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Ethylbenzene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Xylenes, Total	ND	0.00232		mg/Kg	1	10/8/2012 5:18:58 PM
Methyl tert-butyl ether (MTBE)	0.00148	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,2,4-Trimethylbenzene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,3,5-Trimethylbenzene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,2-Dichloroethane (EDC)	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,2-Dibromoethane (EDB)	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Naphthalene	ND	0.00232		mg/Kg	1	10/8/2012 5:18:58 PM
1-Methylnaphthalene	ND	0.00463		mg/Kg	1	10/8/2012 5:18:58 PM
2-Methylnaphthalene	ND	0.00463		mg/Kg	1	10/8/2012 5:18:58 PM
Acetone	0.0135	0.0116		mg/Kg	1	10/8/2012 5:18:58 PM
Bromobenzene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Bromodichloromethane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Bromoform	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Bromomethane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
2-Butanone	ND	0.0116		mg/Kg	1	10/8/2012 5:18:58 PM
Carbon tetrachloride	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Chlorobenzene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Chloroethane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-2 (10-11')
Project: SWMU NO.1
Collection Date: 10/2/2012 10:20:00 AM
Lab ID: 1210279-002 **Matrix:** SOIL **Received Date:** 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Chloromethane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
2-Chlorotoluene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Carbon disulfide	ND	0.0116		mg/Kg	1	10/8/2012 5:18:58 PM
4-Chlorotoluene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
cis-1,2-DCE	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
cis-1,3-Dichloropropene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,2-Dibromo-3-chloropropane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Dibromochloromethane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Dibromomethane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,2-Dichlorobenzene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,3-Dichlorobenzene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,4-Dichlorobenzene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Dichlorodifluoromethane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,1-Dichloroethane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,1-Dichloroethene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,2-Dichloropropane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,3-Dichloropropane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
2,2-Dichloropropane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,1-Dichloropropene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Hexachlorobutadiene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Isopropylbenzene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
4-Isopropyltoluene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Methylene chloride	ND	0.00347		mg/Kg	1	10/8/2012 5:18:58 PM
n-Butylbenzene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
2-Hexanone	ND	0.0116		mg/Kg	1	10/8/2012 5:18:58 PM
n-Propylbenzene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
sec-Butylbenzene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Styrene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
4-Methyl-2-pentanone	ND	0.0116		mg/Kg	1	10/8/2012 5:18:58 PM
tert-Butylbenzene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,1,1,2-Tetrachloroethane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,1,2,2-Tetrachloroethane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Tetrachloroethene (PCE)	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
trans-1,2-DCE	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
trans-1,3-Dichloropropene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,2,3-Trichlorobenzene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,2,4-Trichlorobenzene	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,1,1-Trichloroethane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
1,1,2-Trichloroethane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Trichloroethene (TCE)	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Trichlorofluoromethane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM

Qualifiers:

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

Analytical Report
Lab Order **1210279**
Date Reported: **11/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-2 (10-11')
Collection Date: 10/2/2012 10:20:00 AM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Vinyl chloride	ND	0.00116		mg/Kg	1	10/8/2012 5:18:58 PM
Surr: 1,2-Dichloroethane-d4	97.6	70-130		%REC	1	10/8/2012 5:18:58 PM
Surr: 4-Bromofluorobenzene	96.0	70-130		%REC	1	10/8/2012 5:18:58 PM
Surr: Dibromofluoromethane	106	70-130		%REC	1	10/8/2012 5:18:58 PM
Surr: Toluene-d8	86.7	70-130		%REC	1	10/8/2012 5:18:58 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-2 (14-16')
Project: SWMU NO.1
Collection Date: 10/2/2012 10:35:00 AM
Lab ID: 1210279-003 **Matrix:** SOIL **Received Date:** 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/7/2012 1:28:43 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/7/2012 1:28:43 AM
Surr: DNOP	92.2	77.6-140		%REC	1	10/7/2012 1:28:43 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2012 4:24:34 AM
Surr: BFB	101	84-116		%REC	1	10/6/2012 4:24:34 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 10:27:28 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	10/17/2012 10:36:49 AM
Arsenic	ND	5.0		mg/Kg	2	10/17/2012 10:36:49 AM
Barium	680	2.0		mg/Kg	20	10/23/2012 6:47:15 PM
Beryllium	0.58	0.30		mg/Kg	2	10/17/2012 10:36:49 AM
Cadmium	ND	0.20		mg/Kg	2	10/17/2012 10:36:49 AM
Chromium	6.3	0.60		mg/Kg	2	10/17/2012 10:36:49 AM
Cobalt	3.5	0.60		mg/Kg	2	10/17/2012 10:36:49 AM
Iron	12000	500		mg/Kg	500	10/17/2012 1:04:52 PM
Lead	3.5	0.50		mg/Kg	2	10/17/2012 10:36:49 AM
Manganese	360	1.0		mg/Kg	10	10/17/2012 1:02:29 PM
Nickel	5.7	1.0		mg/Kg	2	10/17/2012 10:36:49 AM
Selenium	ND	5.0		mg/Kg	2	10/23/2012 6:44:52 PM
Silver	ND	0.50		mg/Kg	2	10/17/2012 10:36:49 AM
Vanadium	13	5.0		mg/Kg	2	10/17/2012 10:36:49 AM
Zinc	13	5.0		mg/Kg	2	10/17/2012 10:36:49 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Aniline	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Anthracene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Azobenzene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/9/2012 3:50:57 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-2 (14-16')
Collection Date: 10/2/2012 10:35:00 AM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/9/2012 3:50:57 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Carbazole	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 3:50:57 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/9/2012 3:50:57 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/9/2012 3:50:57 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Chrysene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/9/2012 3:50:57 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/9/2012 3:50:57 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/9/2012 3:50:57 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 3:50:57 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/9/2012 3:50:57 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 3:50:57 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/9/2012 3:50:57 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 3:50:57 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 3:50:57 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Fluorene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Isophorone	ND	0.50		mg/Kg	1	10/9/2012 3:50:57 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/9/2012 3:50:57 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Naphthalene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-2 (14-16')
Project: SWMU NO.1
Collection Date: 10/2/2012 10:35:00 AM
Lab ID: 1210279-003 **Matrix:** SOIL **Received Date:** 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 3:50:57 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/9/2012 3:50:57 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/9/2012 3:50:57 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/9/2012 3:50:57 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Phenol	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Pyrene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Pyridine	ND	0.50		mg/Kg	1	10/9/2012 3:50:57 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 3:50:57 PM
Surr: 2,4,6-Tribromophenol	82.4	21.3-145		%REC	1	10/9/2012 3:50:57 PM
Surr: 2-Fluorobiphenyl	73.6	20-131		%REC	1	10/9/2012 3:50:57 PM
Surr: 2-Fluorophenol	82.2	11.9-130		%REC	1	10/9/2012 3:50:57 PM
Surr: 4-Terphenyl-d14	66.7	25.1-149		%REC	1	10/9/2012 3:50:57 PM
Surr: Nitrobenzene-d5	76.7	25.6-137		%REC	1	10/9/2012 3:50:57 PM
Surr: Phenol-d5	80.8	20.3-132		%REC	1	10/9/2012 3:50:57 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00194	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Toluene	0.00151	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Ethylbenzene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Xylenes, Total	ND	0.00242		mg/Kg	1	10/8/2012 5:50:15 PM
Methyl tert-butyl ether (MTBE)	0.00518	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,2,4-Trimethylbenzene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,3,5-Trimethylbenzene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,2-Dichloroethane (EDC)	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,2-Dibromoethane (EDB)	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Naphthalene	ND	0.00242		mg/Kg	1	10/8/2012 5:50:15 PM
1-Methylnaphthalene	ND	0.00484		mg/Kg	1	10/8/2012 5:50:15 PM
2-Methylnaphthalene	ND	0.00484		mg/Kg	1	10/8/2012 5:50:15 PM
Acetone	0.0158	0.0121		mg/Kg	1	10/8/2012 5:50:15 PM
Bromobenzene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Bromodichloromethane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Bromoform	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Bromomethane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
2-Butanone	ND	0.0121		mg/Kg	1	10/8/2012 5:50:15 PM
Carbon tetrachloride	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Chlorobenzene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Chloroethane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-2 (14-16')
Collection Date: 10/2/2012 10:35:00 AM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Chloromethane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
2-Chlorotoluene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Carbon disulfide	ND	0.0121		mg/Kg	1	10/8/2012 5:50:15 PM
4-Chlorotoluene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
cis-1,2-DCE	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
cis-1,3-Dichloropropene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,2-Dibromo-3-chloropropane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Dibromochloromethane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Dibromomethane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,2-Dichlorobenzene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,3-Dichlorobenzene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,4-Dichlorobenzene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Dichlorodifluoromethane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,1-Dichloroethane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,1-Dichloroethene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,2-Dichloropropane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,3-Dichloropropane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
2,2-Dichloropropane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,1-Dichloropropene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Hexachlorobutadiene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Isopropylbenzene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
4-Isopropyltoluene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Methylene chloride	ND	0.00363		mg/Kg	1	10/8/2012 5:50:15 PM
n-Butylbenzene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
2-Hexanone	ND	0.0121		mg/Kg	1	10/8/2012 5:50:15 PM
n-Propylbenzene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
sec-Butylbenzene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Styrene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
4-Methyl-2-pentanone	ND	0.0121		mg/Kg	1	10/8/2012 5:50:15 PM
tert-Butylbenzene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,1,1,2-Tetrachloroethane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,1,2,2-Tetrachloroethane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Tetrachloroethene (PCE)	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
trans-1,2-DCE	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
trans-1,3-Dichloropropene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,2,3-Trichlorobenzene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,2,4-Trichlorobenzene	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,1,1-Trichloroethane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
1,1,2-Trichloroethane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Trichloroethene (TCE)	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Trichlorofluoromethane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-2 (14-16')
Project: SWMU NO.1
Collection Date: 10/2/2012 10:35:00 AM
Lab ID: 1210279-003 **Matrix:** SOIL **Received Date:** 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Vinyl chloride	ND	0.00121		mg/Kg	1	10/8/2012 5:50:15 PM
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	10/8/2012 5:50:15 PM
Surr: 4-Bromofluorobenzene	93.7	70-130		%REC	1	10/8/2012 5:50:15 PM
Surr: Dibromofluoromethane	103	70-130		%REC	1	10/8/2012 5:50:15 PM
Surr: Toluene-d8	101	70-130		%REC	1	10/8/2012 5:50:15 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1210279**
Date Reported: **11/14/2012**

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-2 (17-17.25')
Collection Date: 10/2/2012 10:50:00 AM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/7/2012 2:18:27 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/7/2012 2:18:27 AM
Surr: DNOP	91.6	77.6-140		%REC	1	10/7/2012 2:18:27 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2012 4:53:17 AM
Surr: BFB	107	84-116		%REC	1	10/6/2012 4:53:17 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 10:29:13 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/23/2012 6:49:38 PM
Arsenic	ND	5.0		mg/Kg	2	10/17/2012 10:54:32 AM
Barium	180	0.50		mg/Kg	5	10/17/2012 1:07:31 PM
Beryllium	0.74	0.30		mg/Kg	2	10/17/2012 10:54:32 AM
Cadmium	ND	0.20		mg/Kg	2	10/17/2012 10:54:32 AM
Chromium	6.9	0.60		mg/Kg	2	10/17/2012 10:54:32 AM
Cobalt	3.8	0.60		mg/Kg	2	10/17/2012 10:54:32 AM
Iron	12000	500		mg/Kg	500	10/17/2012 1:09:55 PM
Lead	4.8	0.50		mg/Kg	2	10/17/2012 10:54:32 AM
Manganese	280	1.0		mg/Kg	10	10/23/2012 6:52:01 PM
Nickel	6.7	1.0		mg/Kg	2	10/17/2012 10:54:32 AM
Selenium	ND	5.0		mg/Kg	2	10/23/2012 6:49:38 PM
Silver	ND	0.50		mg/Kg	2	10/17/2012 10:54:32 AM
Vanadium	12	5.0		mg/Kg	2	10/17/2012 10:54:32 AM
Zinc	13	5.0		mg/Kg	2	10/17/2012 10:54:32 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Aniline	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Anthracene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Azobenzene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/9/2012 1:49:59 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-2 (17-17.25')
Collection Date: 10/2/2012 10:50:00 AM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/9/2012 1:49:59 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Carbazole	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 1:49:59 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/9/2012 1:49:59 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/9/2012 1:49:59 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Chrysene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/9/2012 1:49:59 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/9/2012 1:49:59 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/9/2012 1:49:59 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 1:49:59 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/9/2012 1:49:59 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 1:49:59 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/9/2012 1:49:59 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 1:49:59 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 1:49:59 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Fluorene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Isophorone	ND	0.50		mg/Kg	1	10/9/2012 1:49:59 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/9/2012 1:49:59 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Naphthalene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-2 (17-17.25')
Collection Date: 10/2/2012 10:50:00 AM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 1:49:59 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/9/2012 1:49:59 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/9/2012 1:49:59 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/9/2012 1:49:59 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Phenol	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Pyrene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Pyridine	ND	0.50		mg/Kg	1	10/9/2012 1:49:59 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 1:49:59 PM
Surr: 2,4,6-Tribromophenol	67.7	21.3-145		%REC	1	10/9/2012 1:49:59 PM
Surr: 2-Fluorobiphenyl	58.6	20-131		%REC	1	10/9/2012 1:49:59 PM
Surr: 2-Fluorophenol	58.9	11.9-130		%REC	1	10/9/2012 1:49:59 PM
Surr: 4-Terphenyl-d14	56.4	25.1-149		%REC	1	10/9/2012 1:49:59 PM
Surr: Nitrobenzene-d5	57.7	25.6-137		%REC	1	10/9/2012 1:49:59 PM
Surr: Phenol-d5	62.4	20.3-132		%REC	1	10/9/2012 1:49:59 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00139	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Toluene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Ethylbenzene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Xylenes, Total	ND	0.00233		mg/Kg	1	10/8/2012 6:21:07 PM
Methyl tert-butyl ether (MTBE)	0.00412	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,2,4-Trimethylbenzene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,3,5-Trimethylbenzene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,2-Dichloroethane (EDC)	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,2-Dibromoethane (EDB)	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Naphthalene	ND	0.00233		mg/Kg	1	10/8/2012 6:21:07 PM
1-Methylnaphthalene	ND	0.00466		mg/Kg	1	10/8/2012 6:21:07 PM
2-Methylnaphthalene	ND	0.00466		mg/Kg	1	10/8/2012 6:21:07 PM
Acetone	0.0877	0.0116		mg/Kg	1	10/8/2012 6:21:07 PM
Bromobenzene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Bromodichloromethane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Bromoform	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Bromomethane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
2-Butanone	ND	0.0116		mg/Kg	1	10/8/2012 6:21:07 PM
Carbon tetrachloride	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Chlorobenzene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Chloroethane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-2 (17-17.25')
Project: SWMU NO.1
Collection Date: 10/2/2012 10:50:00 AM
Lab ID: 1210279-004 **Matrix:** SOIL **Received Date:** 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Chloromethane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
2-Chlorotoluene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Carbon disulfide	ND	0.0116		mg/Kg	1	10/8/2012 6:21:07 PM
4-Chlorotoluene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
cis-1,2-DCE	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
cis-1,3-Dichloropropene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,2-Dibromo-3-chloropropane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Dibromochloromethane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Dibromomethane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,2-Dichlorobenzene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,3-Dichlorobenzene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,4-Dichlorobenzene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Dichlorodifluoromethane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,1-Dichloroethane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,1-Dichloroethene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,2-Dichloropropane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,3-Dichloropropane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
2,2-Dichloropropane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,1-Dichloropropene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Hexachlorobutadiene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Isopropylbenzene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
4-Isopropyltoluene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Methylene chloride	ND	0.00349		mg/Kg	1	10/8/2012 6:21:07 PM
n-Butylbenzene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
2-Hexanone	ND	0.0116		mg/Kg	1	10/8/2012 6:21:07 PM
n-Propylbenzene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
sec-Butylbenzene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Styrene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
4-Methyl-2-pentanone	ND	0.0116		mg/Kg	1	10/8/2012 6:21:07 PM
tert-Butylbenzene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,1,1,2-Tetrachloroethane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,1,2,2-Tetrachloroethane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Tetrachloroethene (PCE)	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
trans-1,2-DCE	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
trans-1,3-Dichloropropene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,2,3-Trichlorobenzene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,2,4-Trichlorobenzene	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,1,1-Trichloroethane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
1,1,2-Trichloroethane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Trichloroethene (TCE)	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Trichlorofluoromethane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM

Qualifiers:

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

Analytical Report
Lab Order **1210279**
Date Reported: **11/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-2 (17-17.25')
Collection Date: 10/2/2012 10:50:00 AM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Vinyl chloride	ND	0.00116		mg/Kg	1	10/8/2012 6:21:07 PM
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	10/8/2012 6:21:07 PM
Surr: 4-Bromofluorobenzene	88.6	70-130		%REC	1	10/8/2012 6:21:07 PM
Surr: Dibromofluoromethane	108	70-130		%REC	1	10/8/2012 6:21:07 PM
Surr: Toluene-d8	102	70-130		%REC	1	10/8/2012 6:21:07 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-2 (19.5-20')
Project: SWMU NO.1
Collection Date: 10/2/2012 11:05:00 AM
Lab ID: 1210279-005 **Matrix:** SOIL **Received Date:** 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/7/2012 2:43:18 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/7/2012 2:43:18 AM
Surr: DNOP	96.4	77.6-140		%REC	1	10/7/2012 2:43:18 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2012 5:21:59 AM
Surr: BFB	103	84-116		%REC	1	10/6/2012 5:21:59 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 10:45:02 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/23/2012 7:01:34 PM
Arsenic	ND	5.0		mg/Kg	2	10/17/2012 10:59:42 AM
Barium	1300	5.0		mg/Kg	50	10/17/2012 1:23:06 PM
Beryllium	0.77	0.30		mg/Kg	2	10/17/2012 10:59:42 AM
Cadmium	ND	0.20		mg/Kg	2	10/17/2012 10:59:42 AM
Chromium	12	0.60		mg/Kg	2	10/17/2012 10:59:42 AM
Cobalt	11	0.60		mg/Kg	2	10/17/2012 10:59:42 AM
Iron	17000	500		mg/Kg	500	10/17/2012 1:25:32 PM
Lead	3.9	0.50		mg/Kg	2	10/17/2012 10:59:42 AM
Manganese	1200	5.0		mg/Kg	50	10/17/2012 1:23:06 PM
Nickel	16	1.0		mg/Kg	2	10/17/2012 10:59:42 AM
Selenium	ND	5.0		mg/Kg	2	10/23/2012 7:01:34 PM
Silver	ND	0.50		mg/Kg	2	10/17/2012 10:59:42 AM
Vanadium	14	5.0		mg/Kg	2	10/17/2012 10:59:42 AM
Zinc	30	5.0		mg/Kg	2	10/17/2012 10:59:42 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Aniline	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Anthracene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Azobenzene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/9/2012 4:21:18 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-2 (19.5-20')
Collection Date: 10/2/2012 11:05:00 AM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/9/2012 4:21:18 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Carbazole	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 4:21:18 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/9/2012 4:21:18 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/9/2012 4:21:18 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Chrysene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/9/2012 4:21:18 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/9/2012 4:21:18 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/9/2012 4:21:18 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 4:21:18 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/9/2012 4:21:18 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 4:21:18 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/9/2012 4:21:18 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 4:21:18 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 4:21:18 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Fluorene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Isophorone	ND	0.50		mg/Kg	1	10/9/2012 4:21:18 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/9/2012 4:21:18 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Naphthalene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-2 (19.5-20')
Collection Date: 10/2/2012 11:05:00 AM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 4:21:18 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/9/2012 4:21:18 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/9/2012 4:21:18 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/9/2012 4:21:18 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Phenol	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Pyrene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Pyridine	ND	0.50		mg/Kg	1	10/9/2012 4:21:18 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 4:21:18 PM
Surr: 2,4,6-Tribromophenol	51.4	21.3-145		%REC	1	10/9/2012 4:21:18 PM
Surr: 2-Fluorobiphenyl	45.6	20-131		%REC	1	10/9/2012 4:21:18 PM
Surr: 2-Fluorophenol	50.5	11.9-130		%REC	1	10/9/2012 4:21:18 PM
Surr: 4-Terphenyl-d14	46.4	25.1-149		%REC	1	10/9/2012 4:21:18 PM
Surr: Nitrobenzene-d5	44.5	25.6-137		%REC	1	10/9/2012 4:21:18 PM
Surr: Phenol-d5	53.8	20.3-132		%REC	1	10/9/2012 4:21:18 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00395	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Toluene	0.00333	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Ethylbenzene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Xylenes, Total	0.00212	0.00208		mg/Kg	1	10/8/2012 6:51:59 PM
Methyl tert-butyl ether (MTBE)	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,2,4-Trimethylbenzene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,3,5-Trimethylbenzene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,2-Dichloroethane (EDC)	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,2-Dibromoethane (EDB)	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Naphthalene	ND	0.00208		mg/Kg	1	10/8/2012 6:51:59 PM
1-Methylnaphthalene	ND	0.00416		mg/Kg	1	10/8/2012 6:51:59 PM
2-Methylnaphthalene	ND	0.00416		mg/Kg	1	10/8/2012 6:51:59 PM
Acetone	0.0127	0.0104		mg/Kg	1	10/8/2012 6:51:59 PM
Bromobenzene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Bromodichloromethane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Bromoform	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Bromomethane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
2-Butanone	ND	0.0104		mg/Kg	1	10/8/2012 6:51:59 PM
Carbon tetrachloride	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Chlorobenzene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Chloroethane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-2 (19.5-20')
Collection Date: 10/2/2012 11:05:00 AM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Chloromethane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
2-Chlorotoluene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Carbon disulfide	ND	0.0104		mg/Kg	1	10/8/2012 6:51:59 PM
4-Chlorotoluene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
cis-1,2-DCE	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
cis-1,3-Dichloropropene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,2-Dibromo-3-chloropropane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Dibromochloromethane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Dibromomethane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,2-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,3-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,4-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Dichlorodifluoromethane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,1-Dichloroethane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,1-Dichloroethene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,2-Dichloropropane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,3-Dichloropropane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
2,2-Dichloropropane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,1-Dichloropropene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Hexachlorobutadiene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Isopropylbenzene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
4-Isopropyltoluene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Methylene chloride	ND	0.00312		mg/Kg	1	10/8/2012 6:51:59 PM
n-Butylbenzene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
2-Hexanone	ND	0.0104		mg/Kg	1	10/8/2012 6:51:59 PM
n-Propylbenzene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
sec-Butylbenzene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Styrene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
4-Methyl-2-pentanone	ND	0.0104		mg/Kg	1	10/8/2012 6:51:59 PM
tert-Butylbenzene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,1,1,2-Tetrachloroethane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,1,2,2-Tetrachloroethane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Tetrachloroethene (PCE)	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
trans-1,2-DCE	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
trans-1,3-Dichloropropene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,2,3-Trichlorobenzene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,2,4-Trichlorobenzene	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,1,1-Trichloroethane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
1,1,2-Trichloroethane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Trichloroethene (TCE)	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Trichlorofluoromethane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-2 (19.5-20')
Project: SWMU NO.1
Collection Date: 10/2/2012 11:05:00 AM
Lab ID: 1210279-005 **Matrix:** SOIL **Received Date:** 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Vinyl chloride	ND	0.00104		mg/Kg	1	10/8/2012 6:51:59 PM
Surr: 1,2-Dichloroethane-d4	97.4	70-130		%REC	1	10/8/2012 6:51:59 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	10/8/2012 6:51:59 PM
Surr: Dibromofluoromethane	93.8	70-130		%REC	1	10/8/2012 6:51:59 PM
Surr: Toluene-d8	92.9	70-130		%REC	1	10/8/2012 6:51:59 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-006 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-2 GW
Collection Date: 10/2/2012 1:45:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	2.0		mg/L	1	10/8/2012 11:04:25 AM
Motor Oil Range Organics (MRO)	ND	10		mg/L	1	10/8/2012 11:04:25 AM
Surr: DNOP	117	79.5-166		%REC	1	10/8/2012 11:04:25 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.71	0.25		mg/L	5	10/5/2012 5:49:08 PM
Surr: BFB	106	69.8-119		%REC	5	10/5/2012 5:49:08 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	3.0	1.0		mg/L	10	10/4/2012 4:02:29 PM
Chloride	1600	100		mg/L	200	10/11/2012 12:55:50 AM
Sulfate	550	25		mg/L	50	10/4/2012 4:14:53 PM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Barium	56	0.20	*	mg/L	20	10/12/2012 9:19:00 AM
Beryllium	0.21	0.050	*	mg/L	5	10/10/2012 8:05:38 PM
Cadmium	ND	0.050		mg/L	5	10/10/2012 8:05:38 PM
Chromium	0.31	0.15	*	mg/L	5	10/12/2012 9:15:42 AM
Cobalt	0.53	0.15		mg/L	5	10/10/2012 8:05:38 PM
Iron	140	5.0	*	mg/L	50	10/12/2012 10:14:03 AM
Manganese	95	0.20	*	mg/L	20	10/12/2012 9:19:00 AM
Nickel	0.95	0.25	*	mg/L	5	10/10/2012 8:05:38 PM
Silver	ND	0.12		mg/L	5	10/10/2012 8:05:38 PM
Vanadium	ND	1.2		mg/L	5	10/10/2012 8:05:38 PM
Zinc	1.1	0.25		mg/L	5	10/12/2012 9:15:42 AM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.012		mg/L	2.5	10/15/2012 5:42:26 PM
Arsenic	0.063	0.012	*	mg/L	2.5	10/15/2012 5:42:26 PM
Lead	1.7	0.050	*	mg/L	10	10/16/2012 6:06:18 PM
Selenium	0.059	0.050	*	mg/L	10	10/16/2012 6:06:18 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	0.00027	0.00020		mg/L	1	10/12/2012 5:11:45 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Acenaphthylene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Aniline	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Anthracene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Azobenzene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Benz(a)anthracene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/8/2012 6:59:51 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-2 GW
Project: SWMU NO.1
Collection Date: 10/2/2012 1:45:00 PM
Lab ID: 1210279-006 **Matrix:** AQUEOUS **Received Date:** 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Benzo(k)fluoranthene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Benzoic acid	ND	20		µg/L	1	10/8/2012 6:59:51 PM
Benzyl alcohol	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/8/2012 6:59:51 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Carbazole	ND	10		µg/L	1	10/8/2012 6:59:51 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/8/2012 6:59:51 PM
4-Chloroaniline	ND	10		µg/L	1	10/8/2012 6:59:51 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
2-Chlorophenol	ND	10		µg/L	1	10/8/2012 6:59:51 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Chrysene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Di-n-octyl phthalate	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Dibenzofuran	ND	10		µg/L	1	10/8/2012 6:59:51 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Diethyl phthalate	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Dimethyl phthalate	ND	10		µg/L	1	10/8/2012 6:59:51 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/8/2012 6:59:51 PM
2,4-Dimethylphenol	26	10		µg/L	1	10/8/2012 6:59:51 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/8/2012 6:59:51 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/8/2012 6:59:51 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Fluoranthene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Fluorene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Hexachlorobenzene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Hexachloroethane	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Isophorone	ND	10		µg/L	1	10/8/2012 6:59:51 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/8/2012 6:59:51 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-006 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-2 GW
Collection Date: 10/2/2012 1:45:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Methylphenol	ND	10		µg/L	1	10/8/2012 6:59:51 PM
3+4-Methylphenol	ND	10		µg/L	1	10/8/2012 6:59:51 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/8/2012 6:59:51 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/8/2012 6:59:51 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Naphthalene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
2-Nitroaniline	ND	10		µg/L	1	10/8/2012 6:59:51 PM
3-Nitroaniline	ND	10		µg/L	1	10/8/2012 6:59:51 PM
4-Nitroaniline	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Nitrobenzene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
2-Nitrophenol	ND	10		µg/L	1	10/8/2012 6:59:51 PM
4-Nitrophenol	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Pentachlorophenol	ND	20		µg/L	1	10/8/2012 6:59:51 PM
Phenanthrene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Phenol	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Pyrene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Pyridine	ND	10		µg/L	1	10/8/2012 6:59:51 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/8/2012 6:59:51 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/8/2012 6:59:51 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/8/2012 6:59:51 PM
Surr: 2,4,6-Tribromophenol	68.0	44.2-126		%REC	1	10/8/2012 6:59:51 PM
Surr: 2-Fluorobiphenyl	61.1	37-114		%REC	1	10/8/2012 6:59:51 PM
Surr: 2-Fluorophenol	49.4	23.4-98		%REC	1	10/8/2012 6:59:51 PM
Surr: 4-Terphenyl-d14	52.7	41.3-116		%REC	1	10/8/2012 6:59:51 PM
Surr: Nitrobenzene-d5	71.8	39.5-118		%REC	1	10/8/2012 6:59:51 PM
Surr: Phenol-d5	44.9	20.9-95.9		%REC	1	10/8/2012 6:59:51 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	17	2.0		µg/L	2	10/4/2012 9:52:56 PM
Toluene	4.0	2.0		µg/L	2	10/4/2012 9:52:56 PM
Ethylbenzene	4.7	2.0		µg/L	2	10/4/2012 9:52:56 PM
Methyl tert-butyl ether (MTBE)	43	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,2,4-Trimethylbenzene	10	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,3,5-Trimethylbenzene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,2-Dichloroethane (EDC)	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,2-Dibromoethane (EDB)	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
Naphthalene	ND	4.0		µg/L	2	10/4/2012 9:52:56 PM
1-Methylnaphthalene	ND	8.0		µg/L	2	10/4/2012 9:52:56 PM
2-Methylnaphthalene	ND	8.0		µg/L	2	10/4/2012 9:52:56 PM
Acetone	27	20		µg/L	2	10/4/2012 9:52:56 PM
Bromobenzene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
Bromodichloromethane	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-006 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-2 GW
Collection Date: 10/2/2012 1:45:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Bromoform	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
Bromomethane	ND	6.0		µg/L	2	10/4/2012 9:52:56 PM
2-Butanone	ND	20		µg/L	2	10/4/2012 9:52:56 PM
Carbon disulfide	ND	20		µg/L	2	10/4/2012 9:52:56 PM
Carbon Tetrachloride	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
Chlorobenzene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
Chloroethane	ND	4.0		µg/L	2	10/4/2012 9:52:56 PM
Chloroform	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
Chloromethane	ND	6.0		µg/L	2	10/4/2012 9:52:56 PM
2-Chlorotoluene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
4-Chlorotoluene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
cis-1,2-DCE	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
cis-1,3-Dichloropropene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,2-Dibromo-3-chloropropane	ND	4.0		µg/L	2	10/4/2012 9:52:56 PM
Dibromochloromethane	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
Dibromomethane	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,2-Dichlorobenzene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,3-Dichlorobenzene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,4-Dichlorobenzene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
Dichlorodifluoromethane	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,1-Dichloroethane	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,1-Dichloroethene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,2-Dichloropropane	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,3-Dichloropropane	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
2,2-Dichloropropane	ND	4.0		µg/L	2	10/4/2012 9:52:56 PM
1,1-Dichloropropene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
Hexachlorobutadiene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
2-Hexanone	ND	20		µg/L	2	10/4/2012 9:52:56 PM
Isopropylbenzene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
4-Isopropyltoluene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
4-Methyl-2-pentanone	ND	20		µg/L	2	10/4/2012 9:52:56 PM
Methylene Chloride	ND	6.0		µg/L	2	10/4/2012 9:52:56 PM
n-Butylbenzene	ND	6.0		µg/L	2	10/4/2012 9:52:56 PM
n-Propylbenzene	2.7	2.0		µg/L	2	10/4/2012 9:52:56 PM
sec-Butylbenzene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
Styrene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
tert-Butylbenzene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,1,1,2-Tetrachloroethane	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,1,2,2-Tetrachloroethane	ND	4.0		µg/L	2	10/4/2012 9:52:56 PM
Tetrachloroethene (PCE)	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
trans-1,2-DCE	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
trans-1,3-Dichloropropene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM

Qualifiers:

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

Analytical Report
Lab Order **1210279**
Date Reported: **11/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-006 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-2 GW
Collection Date: 10/2/2012 1:45:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
1,2,3-Trichlorobenzene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,2,4-Trichlorobenzene	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,1,1-Trichloroethane	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,1,2-Trichloroethane	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
Trichloroethene (TCE)	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
Trichlorofluoromethane	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
1,2,3-Trichloropropane	ND	4.0		µg/L	2	10/4/2012 9:52:56 PM
Vinyl chloride	ND	2.0		µg/L	2	10/4/2012 9:52:56 PM
Xylenes, Total	20	3.0		µg/L	2	10/4/2012 9:52:56 PM
Surr: 1,2-Dichloroethane-d4	97.2	70-130		%REC	2	10/4/2012 9:52:56 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	2	10/4/2012 9:52:56 PM
Surr: Dibromofluoromethane	94.8	70-130		%REC	2	10/4/2012 9:52:56 PM
Surr: Toluene-d8	100	70-130		%REC	2	10/4/2012 9:52:56 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: SWMU NO.1
Collection Date:
Lab ID: 1210279-007
Matrix: TRIP BLANK
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
Toluene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
Ethylbenzene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
Naphthalene	ND	2.0		µg/L	1	10/4/2012 10:51:26 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/4/2012 10:51:26 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/4/2012 10:51:26 PM
Acetone	ND	10		µg/L	1	10/4/2012 10:51:26 PM
Bromobenzene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
Bromoform	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
Bromomethane	ND	3.0		µg/L	1	10/4/2012 10:51:26 PM
2-Butanone	ND	10		µg/L	1	10/4/2012 10:51:26 PM
Carbon disulfide	ND	10		µg/L	1	10/4/2012 10:51:26 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
Chlorobenzene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
Chloroethane	ND	2.0		µg/L	1	10/4/2012 10:51:26 PM
Chloroform	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
Chloromethane	ND	3.0		µg/L	1	10/4/2012 10:51:26 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/4/2012 10:51:26 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
Dibromomethane	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/4/2012 10:51:26 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
2-Hexanone	ND	10		µg/L	1	10/4/2012 10:51:26 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: SWMU NO.1
Collection Date:
Lab ID: 1210279-007
Matrix: TRIP BLANK
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Isopropylbenzene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/4/2012 10:51:26 PM
Methylene Chloride	ND	3.0		µg/L	1	10/4/2012 10:51:26 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/4/2012 10:51:26 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
Styrene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/4/2012 10:51:26 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/4/2012 10:51:26 PM
Vinyl chloride	ND	1.0		µg/L	1	10/4/2012 10:51:26 PM
Xylenes, Total	ND	1.5		µg/L	1	10/4/2012 10:51:26 PM
Surr: 1,2-Dichloroethane-d4	91.6	70-130		%REC	1	10/4/2012 10:51:26 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	10/4/2012 10:51:26 PM
Surr: Dibromofluoromethane	103	70-130		%REC	1	10/4/2012 10:51:26 PM
Surr: Toluene-d8	99.4	70-130		%REC	1	10/4/2012 10:51:26 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (2-4')
Collection Date: 10/2/2012 4:20:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/7/2012 3:08:09 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/7/2012 3:08:09 AM
Surr: DNOP	98.5	77.6-140		%REC	1	10/7/2012 3:08:09 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/5/2012 12:06:14 PM
Surr: BFB	99.4	84-116		%REC	1	10/5/2012 12:06:14 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 10:46:48 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	2.5		mg/Kg	1	10/23/2012 7:04:15 PM
Arsenic	ND	50		mg/Kg	20	10/17/2012 1:28:13 PM
Barium	770	2.0		mg/Kg	20	10/17/2012 1:28:13 PM
Beryllium	0.39	0.15		mg/Kg	1	10/17/2012 11:02:17 AM
Cadmium	ND	0.10		mg/Kg	1	10/17/2012 11:02:17 AM
Chromium	3.8	0.30		mg/Kg	1	10/17/2012 11:02:17 AM
Cobalt	2.4	0.30		mg/Kg	1	10/17/2012 11:02:17 AM
Iron	4800	200		mg/Kg	200	10/23/2012 7:09:43 PM
Lead	ND	0.25		mg/Kg	1	10/17/2012 11:02:17 AM
Manganese	340	2.0		mg/Kg	20	10/17/2012 1:28:13 PM
Nickel	3.8	0.50		mg/Kg	1	10/17/2012 11:02:17 AM
Selenium	ND	2.5		mg/Kg	1	10/23/2012 7:04:15 PM
Silver	ND	0.25		mg/Kg	1	10/17/2012 11:02:17 AM
Vanadium	11	2.5		mg/Kg	1	10/17/2012 11:02:17 AM
Zinc	9.1	2.5		mg/Kg	1	10/17/2012 11:02:17 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Aniline	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Anthracene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Azobenzene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/9/2012 4:51:45 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (2-4')
Collection Date: 10/2/2012 4:20:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/9/2012 4:51:45 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Carbazole	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 4:51:45 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/9/2012 4:51:45 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/9/2012 4:51:45 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Chrysene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/9/2012 4:51:45 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/9/2012 4:51:45 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/9/2012 4:51:45 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 4:51:45 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/9/2012 4:51:45 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 4:51:45 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/9/2012 4:51:45 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 4:51:45 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 4:51:45 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Fluorene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Isophorone	ND	0.50		mg/Kg	1	10/9/2012 4:51:45 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/9/2012 4:51:45 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Naphthalene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (2-4')
Collection Date: 10/2/2012 4:20:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 4:51:45 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/9/2012 4:51:45 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/9/2012 4:51:45 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/9/2012 4:51:45 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Phenol	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Pyrene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Pyridine	ND	0.50		mg/Kg	1	10/9/2012 4:51:45 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 4:51:45 PM
Surr: 2,4,6-Tribromophenol	75.8	21.3-145		%REC	1	10/9/2012 4:51:45 PM
Surr: 2-Fluorobiphenyl	74.5	20-131		%REC	1	10/9/2012 4:51:45 PM
Surr: 2-Fluorophenol	83.5	11.9-130		%REC	1	10/9/2012 4:51:45 PM
Surr: 4-Terphenyl-d14	65.9	25.1-149		%REC	1	10/9/2012 4:51:45 PM
Surr: Nitrobenzene-d5	79.2	25.6-137		%REC	1	10/9/2012 4:51:45 PM
Surr: Phenol-d5	83.3	20.3-132		%REC	1	10/9/2012 4:51:45 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Toluene	0.00187	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Ethylbenzene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Xylenes, Total	ND	0.00209		mg/Kg	1	10/8/2012 7:22:49 PM
Methyl tert-butyl ether (MTBE)	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,2,4-Trimethylbenzene	0.00128	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,3,5-Trimethylbenzene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,2-Dichloroethane (EDC)	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,2-Dibromoethane (EDB)	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Naphthalene	ND	0.00209		mg/Kg	1	10/8/2012 7:22:49 PM
1-Methylnaphthalene	ND	0.00419		mg/Kg	1	10/8/2012 7:22:49 PM
2-Methylnaphthalene	ND	0.00419		mg/Kg	1	10/8/2012 7:22:49 PM
Acetone	0.0418	0.0105		mg/Kg	1	10/8/2012 7:22:49 PM
Bromobenzene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Bromodichloromethane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Bromoform	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Bromomethane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
2-Butanone	ND	0.0105		mg/Kg	1	10/8/2012 7:22:49 PM
Carbon tetrachloride	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Chlorobenzene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Chloroethane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (2-4')
Collection Date: 10/2/2012 4:20:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Chloromethane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
2-Chlorotoluene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Carbon disulfide	ND	0.0105		mg/Kg	1	10/8/2012 7:22:49 PM
4-Chlorotoluene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
cis-1,2-DCE	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
cis-1,3-Dichloropropene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,2-Dibromo-3-chloropropane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Dibromochloromethane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Dibromomethane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,2-Dichlorobenzene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,3-Dichlorobenzene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,4-Dichlorobenzene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Dichlorodifluoromethane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,1-Dichloroethane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,1-Dichloroethene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,2-Dichloropropane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,3-Dichloropropane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
2,2-Dichloropropane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,1-Dichloropropene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Hexachlorobutadiene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Isopropylbenzene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
4-Isopropyltoluene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Methylene chloride	ND	0.00314		mg/Kg	1	10/8/2012 7:22:49 PM
n-Butylbenzene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
2-Hexanone	ND	0.0105		mg/Kg	1	10/8/2012 7:22:49 PM
n-Propylbenzene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
sec-Butylbenzene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Styrene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
4-Methyl-2-pentanone	ND	0.0105		mg/Kg	1	10/8/2012 7:22:49 PM
tert-Butylbenzene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,1,1,2-Tetrachloroethane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,1,2,2-Tetrachloroethane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Tetrachloroethene (PCE)	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
trans-1,2-DCE	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
trans-1,3-Dichloropropene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,2,3-Trichlorobenzene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,2,4-Trichlorobenzene	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,1,1-Trichloroethane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
1,1,2-Trichloroethane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Trichloroethene (TCE)	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Trichlorofluoromethane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-3 (2-4')
Project: SWMU NO.1
Collection Date: 10/2/2012 4:20:00 PM
Lab ID: 1210279-008
Matrix: SOIL
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Vinyl chloride	ND	0.00105		mg/Kg	1	10/8/2012 7:22:49 PM
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	10/8/2012 7:22:49 PM
Surr: 4-Bromofluorobenzene	97.2	70-130		%REC	1	10/8/2012 7:22:49 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	10/8/2012 7:22:49 PM
Surr: Toluene-d8	98.3	70-130		%REC	1	10/8/2012 7:22:49 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-009 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (10-11')
Collection Date: 10/2/2012 4:35:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/7/2012 3:32:59 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/7/2012 3:32:59 AM
Surr: DNOP	96.0	77.6-140		%REC	1	10/7/2012 3:32:59 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2012 5:50:42 AM
Surr: BFB	106	84-116		%REC	1	10/6/2012 5:50:42 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 10:55:48 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/23/2012 7:12:19 PM
Arsenic	ND	5.0		mg/Kg	2	10/17/2012 11:09:52 AM
Barium	220	0.50		mg/Kg	5	10/17/2012 1:34:59 PM
Beryllium	0.72	0.30		mg/Kg	2	10/17/2012 11:09:52 AM
Cadmium	ND	0.20		mg/Kg	2	10/17/2012 11:09:52 AM
Chromium	7.6	0.60		mg/Kg	2	10/17/2012 11:09:52 AM
Cobalt	3.6	0.60		mg/Kg	2	10/17/2012 11:09:52 AM
Iron	11000	500		mg/Kg	500	10/17/2012 1:37:26 PM
Lead	3.4	0.50		mg/Kg	2	10/17/2012 11:09:52 AM
Manganese	420	1.0		mg/Kg	10	10/23/2012 7:14:46 PM
Nickel	5.7	1.0		mg/Kg	2	10/17/2012 11:09:52 AM
Selenium	ND	5.0		mg/Kg	2	10/23/2012 7:12:19 PM
Silver	ND	0.50		mg/Kg	2	10/17/2012 11:09:52 AM
Vanadium	15	5.0		mg/Kg	2	10/17/2012 11:09:52 AM
Zinc	11	5.0		mg/Kg	2	10/17/2012 11:09:52 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Aniline	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Anthracene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Azobenzene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Benzoic acid	ND	0.51		mg/Kg	1	10/9/2012 2:20:03 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-3 (10-11')
Project: SWMU NO.1
Collection Date: 10/2/2012 4:35:00 PM
Lab ID: 1210279-009 **Matrix:** SOIL **Received Date:** 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.51		mg/Kg	1	10/9/2012 2:20:03 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Carbazole	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
4-Chloro-3-methylphenol	ND	0.51		mg/Kg	1	10/9/2012 2:20:03 PM
4-Chloroaniline	ND	0.51		mg/Kg	1	10/9/2012 2:20:03 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/9/2012 2:20:03 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Chrysene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Di-n-butyl phthalate	ND	0.51		mg/Kg	1	10/9/2012 2:20:03 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/9/2012 2:20:03 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/9/2012 2:20:03 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
2,4-Dichlorophenol	ND	0.41		mg/Kg	1	10/9/2012 2:20:03 PM
2,4-Dimethylphenol	ND	0.31		mg/Kg	1	10/9/2012 2:20:03 PM
4,6-Dinitro-2-methylphenol	ND	0.51		mg/Kg	1	10/9/2012 2:20:03 PM
2,4-Dinitrophenol	ND	0.41		mg/Kg	1	10/9/2012 2:20:03 PM
2,4-Dinitrotoluene	ND	0.51		mg/Kg	1	10/9/2012 2:20:03 PM
2,6-Dinitrotoluene	ND	0.51		mg/Kg	1	10/9/2012 2:20:03 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Fluorene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Isophorone	ND	0.51		mg/Kg	1	10/9/2012 2:20:03 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
2-Methylphenol	ND	0.51		mg/Kg	1	10/9/2012 2:20:03 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Naphthalene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-3 (10-11')
Project: SWMU NO.1
Collection Date: 10/2/2012 4:35:00 PM
Lab ID: 1210279-009 **Matrix:** SOIL **Received Date:** 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
4-Nitroaniline	ND	0.41		mg/Kg	1	10/9/2012 2:20:03 PM
Nitrobenzene	ND	0.51		mg/Kg	1	10/9/2012 2:20:03 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/9/2012 2:20:03 PM
Pentachlorophenol	ND	0.41		mg/Kg	1	10/9/2012 2:20:03 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Phenol	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Pyrene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Pyridine	ND	0.51		mg/Kg	1	10/9/2012 2:20:03 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 2:20:03 PM
Surr: 2,4,6-Tribromophenol	86.8	21.3-145		%REC	1	10/9/2012 2:20:03 PM
Surr: 2-Fluorobiphenyl	81.7	20-131		%REC	1	10/9/2012 2:20:03 PM
Surr: 2-Fluorophenol	85.3	11.9-130		%REC	1	10/9/2012 2:20:03 PM
Surr: 4-Terphenyl-d14	71.9	25.1-149		%REC	1	10/9/2012 2:20:03 PM
Surr: Nitrobenzene-d5	79.7	25.6-137		%REC	1	10/9/2012 2:20:03 PM
Surr: Phenol-d5	84.0	20.3-132		%REC	1	10/9/2012 2:20:03 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Toluene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Ethylbenzene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Xylenes, Total	ND	0.00246		mg/Kg	1	10/8/2012 7:53:36 PM
Methyl tert-butyl ether (MTBE)	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,2,4-Trimethylbenzene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,3,5-Trimethylbenzene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,2-Dichloroethane (EDC)	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,2-Dibromoethane (EDB)	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Naphthalene	ND	0.00246		mg/Kg	1	10/8/2012 7:53:36 PM
1-Methylnaphthalene	ND	0.00492		mg/Kg	1	10/8/2012 7:53:36 PM
2-Methylnaphthalene	ND	0.00492		mg/Kg	1	10/8/2012 7:53:36 PM
Acetone	0.0190	0.0123		mg/Kg	1	10/8/2012 7:53:36 PM
Bromobenzene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Bromodichloromethane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Bromoform	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Bromomethane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
2-Butanone	ND	0.0123		mg/Kg	1	10/8/2012 7:53:36 PM
Carbon tetrachloride	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Chlorobenzene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Chloroethane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-3 (10-11')
Project: SWMU NO.1
Collection Date: 10/2/2012 4:35:00 PM
Lab ID: 1210279-009 **Matrix:** SOIL **Received Date:** 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Chloromethane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
2-Chlorotoluene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Carbon disulfide	ND	0.0123		mg/Kg	1	10/8/2012 7:53:36 PM
4-Chlorotoluene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
cis-1,2-DCE	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
cis-1,3-Dichloropropene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,2-Dibromo-3-chloropropane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Dibromochloromethane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Dibromomethane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,2-Dichlorobenzene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,3-Dichlorobenzene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,4-Dichlorobenzene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Dichlorodifluoromethane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,1-Dichloroethane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,1-Dichloroethene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,2-Dichloropropane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,3-Dichloropropane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
2,2-Dichloropropane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,1-Dichloropropene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Hexachlorobutadiene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Isopropylbenzene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
4-Isopropyltoluene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Methylene chloride	ND	0.00369		mg/Kg	1	10/8/2012 7:53:36 PM
n-Butylbenzene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
2-Hexanone	ND	0.0123		mg/Kg	1	10/8/2012 7:53:36 PM
n-Propylbenzene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
sec-Butylbenzene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Styrene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
4-Methyl-2-pentanone	ND	0.0123		mg/Kg	1	10/8/2012 7:53:36 PM
tert-Butylbenzene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,1,1,2-Tetrachloroethane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,1,2,2-Tetrachloroethane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Tetrachloroethene (PCE)	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
trans-1,2-DCE	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
trans-1,3-Dichloropropene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,2,3-Trichlorobenzene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,2,4-Trichlorobenzene	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,1,1-Trichloroethane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
1,1,2-Trichloroethane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Trichloroethene (TCE)	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Trichlorofluoromethane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-009 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (10-11')
Collection Date: 10/2/2012 4:35:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Vinyl chloride	ND	0.00123		mg/Kg	1	10/8/2012 7:53:36 PM
Surr: 1,2-Dichloroethane-d4	99.2	70-130		%REC	1	10/8/2012 7:53:36 PM
Surr: 4-Bromofluorobenzene	88.1	70-130		%REC	1	10/8/2012 7:53:36 PM
Surr: Dibromofluoromethane	100	70-130		%REC	1	10/8/2012 7:53:36 PM
Surr: Toluene-d8	92.4	70-130		%REC	1	10/8/2012 7:53:36 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-010 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (11-11.25')
Collection Date: 10/2/2012 4:50:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/7/2012 3:57:50 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/7/2012 3:57:50 AM
Surr: DNOP	94.7	77.6-140		%REC	1	10/7/2012 3:57:50 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/5/2012 12:35:00 PM
Surr: BFB	99.5	84-116		%REC	1	10/5/2012 12:35:00 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 10:57:38 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/23/2012 7:17:10 PM
Arsenic	ND	5.0		mg/Kg	2	10/17/2012 11:16:34 AM
Barium	110	0.50		mg/Kg	5	10/17/2012 1:40:18 PM
Beryllium	0.63	0.30		mg/Kg	2	10/17/2012 11:16:34 AM
Cadmium	ND	0.20		mg/Kg	2	10/17/2012 11:16:34 AM
Chromium	4.8	0.60		mg/Kg	2	10/17/2012 11:16:34 AM
Cobalt	3.2	0.60		mg/Kg	2	10/17/2012 11:16:34 AM
Iron	10000	500		mg/Kg	500	10/17/2012 1:42:41 PM
Lead	4.0	0.50		mg/Kg	2	10/17/2012 11:16:34 AM
Manganese	380	1.0		mg/Kg	10	10/23/2012 7:19:37 PM
Nickel	5.0	1.0		mg/Kg	2	10/17/2012 11:16:34 AM
Selenium	ND	5.0		mg/Kg	2	10/23/2012 7:17:10 PM
Silver	ND	0.50		mg/Kg	2	10/17/2012 11:16:34 AM
Vanadium	10	5.0		mg/Kg	2	10/17/2012 11:16:34 AM
Zinc	10	5.0		mg/Kg	2	10/17/2012 11:16:34 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Aniline	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Anthracene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Azobenzene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/9/2012 2:50:19 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-010 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (11-11.25')
Collection Date: 10/2/2012 4:50:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/9/2012 2:50:19 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Carbazole	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 2:50:19 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/9/2012 2:50:19 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/9/2012 2:50:19 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Chrysene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/9/2012 2:50:19 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/9/2012 2:50:19 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/9/2012 2:50:19 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 2:50:19 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/9/2012 2:50:19 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 2:50:19 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/9/2012 2:50:19 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 2:50:19 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 2:50:19 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Fluorene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Isophorone	ND	0.50		mg/Kg	1	10/9/2012 2:50:19 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/9/2012 2:50:19 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Naphthalene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-010 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (11-11.25')
Collection Date: 10/2/2012 4:50:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 2:50:19 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/9/2012 2:50:19 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/9/2012 2:50:19 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/9/2012 2:50:19 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Phenol	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Pyrene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Pyridine	ND	0.50		mg/Kg	1	10/9/2012 2:50:19 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 2:50:19 PM
Surr: 2,4,6-Tribromophenol	83.8	21.3-145		%REC	1	10/9/2012 2:50:19 PM
Surr: 2-Fluorobiphenyl	76.6	20-131		%REC	1	10/9/2012 2:50:19 PM
Surr: 2-Fluorophenol	73.1	11.9-130		%REC	1	10/9/2012 2:50:19 PM
Surr: 4-Terphenyl-d14	66.9	25.1-149		%REC	1	10/9/2012 2:50:19 PM
Surr: Nitrobenzene-d5	73.7	25.6-137		%REC	1	10/9/2012 2:50:19 PM
Surr: Phenol-d5	77.1	20.3-132		%REC	1	10/9/2012 2:50:19 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Toluene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Ethylbenzene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Xylenes, Total	ND	0.00217		mg/Kg	1	10/8/2012 8:24:25 PM
Methyl tert-butyl ether (MTBE)	0.00115	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,2,4-Trimethylbenzene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,3,5-Trimethylbenzene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,2-Dichloroethane (EDC)	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,2-Dibromoethane (EDB)	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Naphthalene	ND	0.00217		mg/Kg	1	10/8/2012 8:24:25 PM
1-Methylnaphthalene	ND	0.00434		mg/Kg	1	10/8/2012 8:24:25 PM
2-Methylnaphthalene	ND	0.00434		mg/Kg	1	10/8/2012 8:24:25 PM
Acetone	0.0469	0.0108		mg/Kg	1	10/8/2012 8:24:25 PM
Bromobenzene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Bromodichloromethane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Bromoform	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Bromomethane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
2-Butanone	ND	0.0108		mg/Kg	1	10/8/2012 8:24:25 PM
Carbon tetrachloride	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Chlorobenzene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Chloroethane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-010 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (11-11.25')
Collection Date: 10/2/2012 4:50:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Chloromethane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
2-Chlorotoluene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Carbon disulfide	ND	0.0108		mg/Kg	1	10/8/2012 8:24:25 PM
4-Chlorotoluene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
cis-1,2-DCE	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
cis-1,3-Dichloropropene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,2-Dibromo-3-chloropropane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Dibromochloromethane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Dibromomethane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,2-Dichlorobenzene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,3-Dichlorobenzene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,4-Dichlorobenzene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Dichlorodifluoromethane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,1-Dichloroethane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,1-Dichloroethene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,2-Dichloropropane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,3-Dichloropropane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
2,2-Dichloropropane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,1-Dichloropropene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Hexachlorobutadiene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Isopropylbenzene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
4-Isopropyltoluene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Methylene chloride	ND	0.00325		mg/Kg	1	10/8/2012 8:24:25 PM
n-Butylbenzene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
2-Hexanone	ND	0.0108		mg/Kg	1	10/8/2012 8:24:25 PM
n-Propylbenzene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
sec-Butylbenzene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Styrene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
4-Methyl-2-pentanone	ND	0.0108		mg/Kg	1	10/8/2012 8:24:25 PM
tert-Butylbenzene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,1,1,2-Tetrachloroethane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,1,2,2-Tetrachloroethane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Tetrachloroethene (PCE)	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
trans-1,2-DCE	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
trans-1,3-Dichloropropene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,2,3-Trichlorobenzene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,2,4-Trichlorobenzene	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,1,1-Trichloroethane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
1,1,2-Trichloroethane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Trichloroethene (TCE)	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Trichlorofluoromethane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-3 (11-11.25')
Project: SWMU NO.1
Collection Date: 10/2/2012 4:50:00 PM
Lab ID: 1210279-010 **Matrix:** SOIL **Received Date:** 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Vinyl chloride	ND	0.00108		mg/Kg	1	10/8/2012 8:24:25 PM
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	10/8/2012 8:24:25 PM
Surr: 4-Bromofluorobenzene	89.2	70-130		%REC	1	10/8/2012 8:24:25 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	10/8/2012 8:24:25 PM
Surr: Toluene-d8	89.1	70-130		%REC	1	10/8/2012 8:24:25 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-011 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (18.5-19.5')
Collection Date: 10/2/2012 5:10:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/7/2012 4:22:29 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/7/2012 4:22:29 AM
Surr: DNOP	96.0	77.6-140		%REC	1	10/7/2012 4:22:29 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2012 2:54:09 AM
Surr: BFB	124	84-116	S	%REC	1	10/6/2012 2:54:09 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 10:59:26 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/23/2012 7:22:03 PM
Arsenic	ND	5.0		mg/Kg	2	10/17/2012 11:32:55 AM
Barium	270	1.0		mg/Kg	10	10/17/2012 1:45:34 PM
Beryllium	0.79	0.30		mg/Kg	2	10/17/2012 11:32:55 AM
Cadmium	ND	0.20		mg/Kg	2	10/17/2012 11:32:55 AM
Chromium	9.3	0.60		mg/Kg	2	10/17/2012 11:32:55 AM
Cobalt	5.4	0.60		mg/Kg	2	10/17/2012 11:32:55 AM
Iron	16000	500		mg/Kg	500	10/17/2012 1:48:00 PM
Lead	4.8	0.50		mg/Kg	2	10/17/2012 11:32:55 AM
Manganese	510	2.0		mg/Kg	20	10/23/2012 7:24:33 PM
Nickel	10	1.0		mg/Kg	2	10/17/2012 11:32:55 AM
Selenium	ND	5.0		mg/Kg	2	10/23/2012 7:22:03 PM
Silver	ND	0.50		mg/Kg	2	10/17/2012 11:32:55 AM
Vanadium	11	5.0		mg/Kg	2	10/17/2012 11:32:55 AM
Zinc	15	5.0		mg/Kg	2	10/17/2012 11:32:55 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Aniline	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Anthracene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Azobenzene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Benzoic acid	ND	0.49		mg/Kg	1	10/9/2012 5:22:05 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-011 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (18.5-19.5')
Collection Date: 10/2/2012 5:10:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.49		mg/Kg	1	10/9/2012 5:22:05 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Carbazole	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
4-Chloro-3-methylphenol	ND	0.49		mg/Kg	1	10/9/2012 5:22:05 PM
4-Chloroaniline	ND	0.49		mg/Kg	1	10/9/2012 5:22:05 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/9/2012 5:22:05 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Chrysene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Di-n-butyl phthalate	ND	0.49		mg/Kg	1	10/9/2012 5:22:05 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/9/2012 5:22:05 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/9/2012 5:22:05 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 5:22:05 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/9/2012 5:22:05 PM
4,6-Dinitro-2-methylphenol	ND	0.49		mg/Kg	1	10/9/2012 5:22:05 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/9/2012 5:22:05 PM
2,4-Dinitrotoluene	ND	0.49		mg/Kg	1	10/9/2012 5:22:05 PM
2,6-Dinitrotoluene	ND	0.49		mg/Kg	1	10/9/2012 5:22:05 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Fluorene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Isophorone	ND	0.49		mg/Kg	1	10/9/2012 5:22:05 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
2-Methylphenol	ND	0.49		mg/Kg	1	10/9/2012 5:22:05 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Naphthalene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-011 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (18.5-19.5')
Collection Date: 10/2/2012 5:10:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 5:22:05 PM
Nitrobenzene	ND	0.49		mg/Kg	1	10/9/2012 5:22:05 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/9/2012 5:22:05 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/9/2012 5:22:05 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Phenol	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Pyrene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Pyridine	ND	0.49		mg/Kg	1	10/9/2012 5:22:05 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 5:22:05 PM
Surr: 2,4,6-Tribromophenol	74.8	21.3-145		%REC	1	10/9/2012 5:22:05 PM
Surr: 2-Fluorobiphenyl	70.5	20-131		%REC	1	10/9/2012 5:22:05 PM
Surr: 2-Fluorophenol	72.6	11.9-130		%REC	1	10/9/2012 5:22:05 PM
Surr: 4-Terphenyl-d14	70.5	25.1-149		%REC	1	10/9/2012 5:22:05 PM
Surr: Nitrobenzene-d5	72.2	25.6-137		%REC	1	10/9/2012 5:22:05 PM
Surr: Phenol-d5	76.1	20.3-132		%REC	1	10/9/2012 5:22:05 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00269	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Toluene	0.00164	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Ethylbenzene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Xylenes, Total	ND	0.00258		mg/Kg	1	10/8/2012 8:55:09 PM
Methyl tert-butyl ether (MTBE)	0.00256	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,2,4-Trimethylbenzene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,3,5-Trimethylbenzene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,2-Dichloroethane (EDC)	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,2-Dibromoethane (EDB)	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Naphthalene	ND	0.00258		mg/Kg	1	10/8/2012 8:55:09 PM
1-Methylnaphthalene	ND	0.00517		mg/Kg	1	10/8/2012 8:55:09 PM
2-Methylnaphthalene	ND	0.00517		mg/Kg	1	10/8/2012 8:55:09 PM
Acetone	ND	0.0129		mg/Kg	1	10/8/2012 8:55:09 PM
Bromobenzene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Bromodichloromethane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Bromoform	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Bromomethane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
2-Butanone	ND	0.0129		mg/Kg	1	10/8/2012 8:55:09 PM
Carbon tetrachloride	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Chlorobenzene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Chloroethane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-3 (18.5-19.5')
Project: SWMU NO.1
Collection Date: 10/2/2012 5:10:00 PM
Lab ID: 1210279-011
Matrix: SOIL
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Chloromethane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
2-Chlorotoluene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Carbon disulfide	ND	0.0129		mg/Kg	1	10/8/2012 8:55:09 PM
4-Chlorotoluene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
cis-1,2-DCE	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
cis-1,3-Dichloropropene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,2-Dibromo-3-chloropropane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Dibromochloromethane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Dibromomethane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,2-Dichlorobenzene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,3-Dichlorobenzene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,4-Dichlorobenzene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Dichlorodifluoromethane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,1-Dichloroethane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,1-Dichloroethene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,2-Dichloropropane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,3-Dichloropropane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
2,2-Dichloropropane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,1-Dichloropropene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Hexachlorobutadiene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Isopropylbenzene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
4-Isopropyltoluene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Methylene chloride	ND	0.00388		mg/Kg	1	10/8/2012 8:55:09 PM
n-Butylbenzene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
2-Hexanone	ND	0.0129		mg/Kg	1	10/8/2012 8:55:09 PM
n-Propylbenzene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
sec-Butylbenzene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Styrene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
4-Methyl-2-pentanone	ND	0.0129		mg/Kg	1	10/8/2012 8:55:09 PM
tert-Butylbenzene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,1,1,2-Tetrachloroethane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,1,2,2-Tetrachloroethane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Tetrachloroethene (PCE)	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
trans-1,2-DCE	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
trans-1,3-Dichloropropene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,2,3-Trichlorobenzene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,2,4-Trichlorobenzene	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,1,1-Trichloroethane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
1,1,2-Trichloroethane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Trichloroethene (TCE)	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Trichlorofluoromethane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-011 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (18.5-19.5')
Collection Date: 10/2/2012 5:10:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Vinyl chloride	ND	0.00129		mg/Kg	1	10/8/2012 8:55:09 PM
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	10/8/2012 8:55:09 PM
Surr: 4-Bromofluorobenzene	92.0	70-130		%REC	1	10/8/2012 8:55:09 PM
Surr: Dibromofluoromethane	103	70-130		%REC	1	10/8/2012 8:55:09 PM
Surr: Toluene-d8	88.3	70-130		%REC	1	10/8/2012 8:55:09 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-012 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (19.5-20')
Collection Date: 10/2/2012 5:25:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/7/2012 4:47:05 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/7/2012 4:47:05 AM
Surr: DNOP	96.2	77.6-140		%REC	1	10/7/2012 4:47:05 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2012 4:55:02 AM
Surr: BFB	110	84-116		%REC	1	10/6/2012 4:55:02 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 11:01:18 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/23/2012 7:26:58 PM
Arsenic	ND	5.0		mg/Kg	2	10/17/2012 11:38:08 AM
Barium	400	1.0		mg/Kg	10	10/17/2012 2:00:57 PM
Beryllium	0.83	0.30		mg/Kg	2	10/17/2012 11:38:08 AM
Cadmium	ND	0.20		mg/Kg	2	10/17/2012 11:38:08 AM
Chromium	10	0.60		mg/Kg	2	10/17/2012 11:38:08 AM
Cobalt	5.7	0.60		mg/Kg	2	10/17/2012 11:38:08 AM
Iron	16000	500		mg/Kg	500	10/17/2012 2:05:01 PM
Lead	2.8	0.50		mg/Kg	2	10/17/2012 11:38:08 AM
Manganese	610	2.0		mg/Kg	20	10/23/2012 7:36:44 PM
Nickel	12	1.0		mg/Kg	2	10/17/2012 11:38:08 AM
Selenium	ND	5.0		mg/Kg	2	10/23/2012 7:26:58 PM
Silver	ND	0.50		mg/Kg	2	10/17/2012 11:38:08 AM
Vanadium	10	5.0		mg/Kg	2	10/17/2012 11:38:08 AM
Zinc	16	5.0		mg/Kg	2	10/17/2012 11:38:08 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Aniline	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Anthracene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Azobenzene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/9/2012 5:52:19 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-012 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (19.5-20')
Collection Date: 10/2/2012 5:25:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/9/2012 5:52:19 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Carbazole	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 5:52:19 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/9/2012 5:52:19 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/9/2012 5:52:19 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Chrysene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/9/2012 5:52:19 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/9/2012 5:52:19 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/9/2012 5:52:19 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 5:52:19 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/9/2012 5:52:19 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 5:52:19 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/9/2012 5:52:19 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 5:52:19 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 5:52:19 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Fluorene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Isophorone	ND	0.50		mg/Kg	1	10/9/2012 5:52:19 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/9/2012 5:52:19 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Naphthalene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-012 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (19.5-20')
Collection Date: 10/2/2012 5:25:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 5:52:19 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/9/2012 5:52:19 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/9/2012 5:52:19 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/9/2012 5:52:19 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Phenol	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Pyrene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Pyridine	ND	0.50		mg/Kg	1	10/9/2012 5:52:19 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 5:52:19 PM
Surr: 2,4,6-Tribromophenol	80.2	21.3-145		%REC	1	10/9/2012 5:52:19 PM
Surr: 2-Fluorobiphenyl	74.8	20-131		%REC	1	10/9/2012 5:52:19 PM
Surr: 2-Fluorophenol	80.7	11.9-130		%REC	1	10/9/2012 5:52:19 PM
Surr: 4-Terphenyl-d14	65.7	25.1-149		%REC	1	10/9/2012 5:52:19 PM
Surr: Nitrobenzene-d5	78.3	25.6-137		%REC	1	10/9/2012 5:52:19 PM
Surr: Phenol-d5	78.3	20.3-132		%REC	1	10/9/2012 5:52:19 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00855	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Toluene	0.00500	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Ethylbenzene	0.00125	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Xylenes, Total	0.00344	0.00240		mg/Kg	1	10/8/2012 9:25:50 PM
Methyl tert-butyl ether (MTBE)	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,2,4-Trimethylbenzene	0.00132	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,3,5-Trimethylbenzene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,2-Dichloroethane (EDC)	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,2-Dibromoethane (EDB)	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Naphthalene	ND	0.00240		mg/Kg	1	10/8/2012 9:25:50 PM
1-Methylnaphthalene	ND	0.00481		mg/Kg	1	10/8/2012 9:25:50 PM
2-Methylnaphthalene	ND	0.00481		mg/Kg	1	10/8/2012 9:25:50 PM
Acetone	ND	0.0120		mg/Kg	1	10/8/2012 9:25:50 PM
Bromobenzene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Bromodichloromethane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Bromoform	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Bromomethane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
2-Butanone	ND	0.0120		mg/Kg	1	10/8/2012 9:25:50 PM
Carbon tetrachloride	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Chlorobenzene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Chloroethane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-012 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (19.5-20')
Collection Date: 10/2/2012 5:25:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Chloromethane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
2-Chlorotoluene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Carbon disulfide	ND	0.0120		mg/Kg	1	10/8/2012 9:25:50 PM
4-Chlorotoluene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
cis-1,2-DCE	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
cis-1,3-Dichloropropene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,2-Dibromo-3-chloropropane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Dibromochloromethane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Dibromomethane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,2-Dichlorobenzene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,3-Dichlorobenzene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,4-Dichlorobenzene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Dichlorodifluoromethane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,1-Dichloroethane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,1-Dichloroethene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,2-Dichloropropane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,3-Dichloropropane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
2,2-Dichloropropane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,1-Dichloropropene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Hexachlorobutadiene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Isopropylbenzene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
4-Isopropyltoluene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Methylene chloride	ND	0.00360		mg/Kg	1	10/8/2012 9:25:50 PM
n-Butylbenzene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
2-Hexanone	ND	0.0120		mg/Kg	1	10/8/2012 9:25:50 PM
n-Propylbenzene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
sec-Butylbenzene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Styrene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
4-Methyl-2-pentanone	ND	0.0120		mg/Kg	1	10/8/2012 9:25:50 PM
tert-Butylbenzene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,1,1,2-Tetrachloroethane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,1,2,2-Tetrachloroethane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Tetrachloroethene (PCE)	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
trans-1,2-DCE	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
trans-1,3-Dichloropropene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,2,3-Trichlorobenzene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,2,4-Trichlorobenzene	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,1,1-Trichloroethane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
1,1,2-Trichloroethane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Trichloroethene (TCE)	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Trichlorofluoromethane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM

Qualifiers:

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

Analytical Report
Lab Order **1210279**
Date Reported: **11/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-012 **Matrix:** SOIL

Client Sample ID: SWMU 1-3 (19.5-20')
Collection Date: 10/2/2012 5:25:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Vinyl chloride	ND	0.00120		mg/Kg	1	10/8/2012 9:25:50 PM
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	1	10/8/2012 9:25:50 PM
Surr: 4-Bromofluorobenzene	95.3	70-130		%REC	1	10/8/2012 9:25:50 PM
Surr: Dibromofluoromethane	103	70-130		%REC	1	10/8/2012 9:25:50 PM
Surr: Toluene-d8	90.5	70-130		%REC	1	10/8/2012 9:25:50 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB100212
Project: SWMU NO.1
Collection Date: 10/2/2012 5:45:00 PM
Lab ID: 1210279-013 **Matrix:** AQUEOUS **Received Date:** 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/8/2012 11:26:09 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/8/2012 11:26:09 AM
Surr: DNOP	118	79.5-166		%REC	1	10/8/2012 11:26:09 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/5/2012 6:49:39 PM
Surr: BFB	97.5	69.8-119		%REC	1	10/5/2012 6:49:39 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	ND	0.10		mg/L	1	10/4/2012 12:22:52 PM
Chloride	ND	0.50		mg/L	1	10/4/2012 12:22:52 PM
Sulfate	ND	0.50		mg/L	1	10/4/2012 12:22:52 PM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	ND	0.0020		mg/L	1	10/10/2012 10:02:26 PM
Beryllium	ND	0.0020		mg/L	1	10/10/2012 10:02:26 PM
Cadmium	ND	0.0020		mg/L	1	10/10/2012 10:02:26 PM
Chromium	ND	0.0060		mg/L	1	10/10/2012 10:02:26 PM
Cobalt	ND	0.0060		mg/L	1	10/10/2012 10:02:26 PM
Iron	ND	0.020		mg/L	1	10/10/2012 10:02:26 PM
Manganese	ND	0.0020		mg/L	1	10/10/2012 10:02:26 PM
Nickel	ND	0.010		mg/L	1	10/10/2012 10:02:26 PM
Silver	ND	0.0050		mg/L	1	10/10/2012 10:02:26 PM
Vanadium	ND	0.050		mg/L	1	10/10/2012 10:02:26 PM
Zinc	ND	0.010		mg/L	1	10/12/2012 9:22:54 AM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0010		mg/L	1	10/17/2012 12:40:00 PM
Arsenic	ND	0.0010		mg/L	1	10/17/2012 12:40:00 PM
Lead	ND	0.0010		mg/L	1	10/17/2012 12:40:00 PM
Selenium	ND	0.0010		mg/L	1	10/17/2012 12:40:00 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	10/15/2012 6:15:26 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Acenaphthylene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Aniline	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Anthracene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Azobenzene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Benz(a)anthracene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/8/2012 7:29:47 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB100212
Project: SWMU NO.1
Collection Date: 10/2/2012 5:45:00 PM
Lab ID: 1210279-013
Matrix: AQUEOUS
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Benzo(k)fluoranthene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Benzoic acid	ND	20		µg/L	1	10/8/2012 7:29:47 PM
Benzyl alcohol	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/8/2012 7:29:47 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Carbazole	ND	10		µg/L	1	10/8/2012 7:29:47 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/8/2012 7:29:47 PM
4-Chloroaniline	ND	10		µg/L	1	10/8/2012 7:29:47 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
2-Chlorophenol	ND	10		µg/L	1	10/8/2012 7:29:47 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Chrysene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Di-n-octyl phthalate	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Dibenzofuran	ND	10		µg/L	1	10/8/2012 7:29:47 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Diethyl phthalate	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Dimethyl phthalate	ND	10		µg/L	1	10/8/2012 7:29:47 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/8/2012 7:29:47 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/8/2012 7:29:47 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/8/2012 7:29:47 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/8/2012 7:29:47 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Fluoranthene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Fluorene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Hexachlorobenzene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Hexachloroethane	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Isophorone	ND	10		µg/L	1	10/8/2012 7:29:47 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/8/2012 7:29:47 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-013 **Matrix:** AQUEOUS

Client Sample ID: EB100212
Collection Date: 10/2/2012 5:45:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Methylphenol	ND	10		µg/L	1	10/8/2012 7:29:47 PM
3+4-Methylphenol	ND	10		µg/L	1	10/8/2012 7:29:47 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/8/2012 7:29:47 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/8/2012 7:29:47 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Naphthalene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
2-Nitroaniline	ND	10		µg/L	1	10/8/2012 7:29:47 PM
3-Nitroaniline	ND	10		µg/L	1	10/8/2012 7:29:47 PM
4-Nitroaniline	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Nitrobenzene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
2-Nitrophenol	ND	10		µg/L	1	10/8/2012 7:29:47 PM
4-Nitrophenol	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Pentachlorophenol	ND	20		µg/L	1	10/8/2012 7:29:47 PM
Phenanthrene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Phenol	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Pyrene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Pyridine	ND	10		µg/L	1	10/8/2012 7:29:47 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/8/2012 7:29:47 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/8/2012 7:29:47 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/8/2012 7:29:47 PM
Surr: 2,4,6-Tribromophenol	74.8	44.2-126		%REC	1	10/8/2012 7:29:47 PM
Surr: 2-Fluorobiphenyl	63.7	37-114		%REC	1	10/8/2012 7:29:47 PM
Surr: 2-Fluorophenol	60.4	23.4-98		%REC	1	10/8/2012 7:29:47 PM
Surr: 4-Terphenyl-d14	64.6	41.3-116		%REC	1	10/8/2012 7:29:47 PM
Surr: Nitrobenzene-d5	72.6	39.5-118		%REC	1	10/8/2012 7:29:47 PM
Surr: Phenol-d5	44.8	20.9-95.9		%REC	1	10/8/2012 7:29:47 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
Toluene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
Ethylbenzene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
Naphthalene	ND	2.0		µg/L	1	10/4/2012 11:20:42 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/4/2012 11:20:42 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/4/2012 11:20:42 PM
Acetone	ND	10		µg/L	1	10/4/2012 11:20:42 PM
Bromobenzene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB100212
Project: SWMU NO.1
Collection Date: 10/2/2012 5:45:00 PM
Lab ID: 1210279-013
Matrix: AQUEOUS
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Bromoform	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
Bromomethane	ND	3.0		µg/L	1	10/4/2012 11:20:42 PM
2-Butanone	ND	10		µg/L	1	10/4/2012 11:20:42 PM
Carbon disulfide	ND	10		µg/L	1	10/4/2012 11:20:42 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
Chlorobenzene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
Chloroethane	ND	2.0		µg/L	1	10/4/2012 11:20:42 PM
Chloroform	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
Chloromethane	ND	3.0		µg/L	1	10/4/2012 11:20:42 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/4/2012 11:20:42 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
Dibromomethane	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/4/2012 11:20:42 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
2-Hexanone	ND	10		µg/L	1	10/4/2012 11:20:42 PM
Isopropylbenzene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/4/2012 11:20:42 PM
Methylene Chloride	ND	3.0		µg/L	1	10/4/2012 11:20:42 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/4/2012 11:20:42 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
Styrene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/4/2012 11:20:42 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210279-013 **Matrix:** AQUEOUS

Client Sample ID: EB100212
Collection Date: 10/2/2012 5:45:00 PM
Received Date: 10/4/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/4/2012 11:20:42 PM
Vinyl chloride	ND	1.0		µg/L	1	10/4/2012 11:20:42 PM
Xylenes, Total	ND	1.5		µg/L	1	10/4/2012 11:20:42 PM
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%REC	1	10/4/2012 11:20:42 PM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	1	10/4/2012 11:20:42 PM
Surr: Dibromofluoromethane	99.3	70-130		%REC	1	10/4/2012 11:20:42 PM
Surr: Toluene-d8	92.3	70-130		%REC	1	10/4/2012 11:20:42 PM

Qualifiers:

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

Anatek Labs, Inc.

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

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	121005049
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1210279
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	121005049-001	**Sampling Date**	10/2/2012	**Date/Time Received**	10/5/2012 10:54 A
Client Sample ID	1210279-001D / SWMU 1-2 (6-8)			**Sampling Time**	10:00 AM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/15/2012	CRW	EPA 335.4	
%moisture	15.1	Percent		10/9/2012	KFG	%moisture	

Sample Number	121005049-002	**Sampling Date**	10/2/2012	**Date/Time Received**	10/5/2012 10:54 A
Client Sample ID	1210279-002D / SWMU 1-2 (10-11)			**Sampling Time**	10:20 AM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/15/2012	CRW	EPA 335.4	
%moisture	19.8	Percent		10/9/2012	KFG	%moisture	

Sample Number	121005049-003	**Sampling Date**	10/2/2012	**Date/Time Received**	10/5/2012 10:54 A
Client Sample ID	1210279-003D / SWMU 1-2 (14-16)			**Sampling Time**	10:35 AM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/15/2012	CRW	EPA 335.4	
%moisture	16.5	Percent		10/9/2012	KFG	%moisture	

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

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

Batch #: 121005049
Project Name: 1210279

Analytical Results Report

Sample Number 121005049-004 **Sampling Date** 10/2/2012 **Date/Time Received** 10/5/2012 10:54 A
Client Sample ID 1210279-004D / SWMU 1-2 (17-17.25) **Sampling Time** 10:50 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/15/2012	CRW	EPA 335.4	
%moisture	19.3	Percent		10/9/2012	KFG	%moisture	

Sample Number 121005049-005 **Sampling Date** 10/2/2012 **Date/Time Received** 10/5/2012 10:54 A
Client Sample ID 1210279-005D / SWMU 1-2 (19.5-20) **Sampling Time** 11:05 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/15/2012	CRW	EPA 335.4	
%moisture	10.8	Percent		10/9/2012	KFG	%moisture	

Sample Number 121005049-006 **Sampling Date** 10/2/2012 **Date/Time Received** 10/5/2012 10:54 A
Client Sample ID 1210279-006F / SWMU 1-2 GW **Sampling Time** 1:45 PM
Matrix Water **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0367	mg/L	0.01	10/16/2012	CRW	EPA 335.4	

Sample Number 121005049-007 **Sampling Date** 10/2/2012 **Date/Time Received** 10/5/2012 10:54 A
Client Sample ID 1210279-008D / SWMU 1-3 (2-4) **Sampling Time** 4:20 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/15/2012	CRW	EPA 335.4	
%moisture	11.4	Percent		10/9/2012	KFG	%moisture	

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

Batch #: 121005049
Project Name: 1210279

Analytical Results Report

Sample Number 121005049-008 **Sampling Date** 10/2/2012 **Date/Time Received** 10/5/2012 10:54 A
Client Sample ID 1210279-009D / SWMU 1-3 (10-11) **Sampling Time** 4:35 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/15/2012	CRW	EPA 335.4	
%moisture	18.1	Percent		10/9/2012	KFG	%moisture	

Sample Number 121005049-009 **Sampling Date** 10/2/2012 **Date/Time Received** 10/5/2012 10:54 A
Client Sample ID 1210279-010D / SWMU 1-3 (11-11.25) **Sampling Time** 4:50 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/15/2012	CRW	EPA 335.4	
%moisture	17.5	Percent		10/9/2012	KFG	%moisture	

Sample Number 121005049-010 **Sampling Date** 10/2/2012 **Date/Time Received** 10/5/2012 10:54 A
Client Sample ID 1210279-011D / SWMU 1-3 (18.5-19.5) **Sampling Time** 5:10 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/15/2012	CRW	EPA 335.4	
%moisture	18.3	Percent		10/9/2012	KFG	%moisture	

Sample Number 121005049-011 **Sampling Date** 10/2/2012 **Date/Time Received** 10/5/2012 10:54 A
Client Sample ID 1210279-012D / SWMU 1-3 (19.5-20) **Sampling Time** 5:25 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/15/2012	CRW	EPA 335.4	
%moisture	13.3	Percent		10/9/2012	KFG	%moisture	

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

Batch #: 121005049
Project Name: 1210279

Analytical Results Report

Sample Number	121005049-012	**Sampling Date**	10/2/2012	**Date/Time Received**	10/5/2012 10:54 A
Client Sample ID	1210279-013F / EB100212			**Sampling Time**	5:45 PM
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	10/16/2012	CRW	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R6141**	RunNo: **6141**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **176939** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R6141**	RunNo: **6141**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **176940** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Beryllium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Chromium	0.49	0.0060	0.5000	0	97.3	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.2	85	115			
Iron	0.49	0.020	0.5000	0	98.1	85	115			
Manganese	0.49	0.0020	0.5000	0	97.7	85	115			
Nickel	0.47	0.010	0.5000	0	94.9	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Vanadium	0.51	0.050	0.5000	0	101	85	115			

Sample ID **1210368-001BMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R6141**	RunNo: **6141**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177005** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0.02430	96.8	70	130			
Beryllium	0.51	0.0020	0.5000	0	102	70	130			
Cadmium	0.49	0.0020	0.5000	0	97.8	70	130			

Sample ID **1210368-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R6141**	RunNo: **6141**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177006** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0.02430	97.1	70	130	0.302	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210368-001BMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**

Client ID: **BatchQC** Batch ID: **R6141** RunNo: **6141**

Prep Date: Analysis Date: **10/10/2012** SeqNo: **177006** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	0.52	0.0020	0.5000	0	103	70	130	0.724	20	
Cadmium	0.50	0.0020	0.5000	0	99.0	70	130	1.24	20	

Sample ID **MB-4223** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**

Client ID: **PBW** Batch ID: **4223** RunNo: **6141**

Prep Date: **10/10/2012** Analysis Date: **10/10/2012** SeqNo: **177028** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Nickel	ND	0.010								
[illegible]	ND	0.0050								
[illegible]um	ND	0.050								
Zinc	ND	0.010								

Sample ID **LCS-4223** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**

Client ID: **LCSW** Batch ID: **4223** RunNo: **6141**

Prep Date: **10/10/2012** Analysis Date: **10/10/2012** SeqNo: **177029** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	99.0	85	115			
Beryllium	0.52	0.0020	0.5000	0	104	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	98.2	85	115			
Cobalt	0.49	0.0060	0.5000	0	97.1	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.3	85	115			
Nickel	0.48	0.010	0.5000	0	96.2	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Vanadium	0.51	0.050	0.5000	0	102	85	115			
Zinc	0.49	0.010	0.5000	0	97.9	85	115			

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**

Client ID: **PBW** Batch ID: **R6212** RunNo: **6212**

Prep Date: Analysis Date: **10/12/2012** SeqNo: **178907** Units: **mg/L**

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

[illegible]iers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R6212**	RunNo: **6212**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178907** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R6212**	RunNo: **6212**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178908** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.51	0.010	0.5000	0	101	85	115			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4223**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **4223**	RunNo: **6249**
Prep Date: **10/10/2012**	Analysis Date: **10/15/2012**	SeqNo: **179959** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0025								
Arsenic	ND	0.0025								
Lead	ND	0.0025								
Selenium	ND	0.0025								

Sample ID **1210046-001AMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181878** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.001891	99.5	70	130			

Sample ID **1210367-001BMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181885** Units: **mg/L**

'vte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
ony	0.025	0.0010	0.02500	0	98.6	70	130			
Arsenic	0.035	0.0010	0.02500	0.01018	101	70	130			
Selenium	0.031	0.0010	0.02500	0.005490	104	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181905** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	101	85	115			
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
Lead	0.025	0.0010	0.02500	0	99.9	85	115			
Selenium	0.026	0.0010	0.02500	0	106	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181906** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	101	85	115			
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
Lead	0.025	0.0010	0.02500	0	99.6	85	115			
Selenium	0.027	0.0010	0.02500	0	106	85	115			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181907** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.024	0.0010	0.02500	0	96.7	85	115			
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Lead	0.025	0.0010	0.02500	0	100	85	115			
Selenium	0.026	0.0010	0.02500	0	106	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181909** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181910** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181911** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **1210585-001CMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181948** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.026	0.0010	0.02500	0	103	70	130			
Arsenic	0.026	0.0010	0.02500	0	102	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210585-001CMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181948** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	99.7	70	130			
Selenium	0.026	0.0010	0.02500	0	105	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	MB-4279	SampType:	MBLK		TestCode:	EPA Method 245.1: Mercury				
Client ID:	PBW	Batch ID:	4279		RunNo:	6215				
Prep Date:	10/12/2012	Analysis Date:	10/12/2012		SeqNo:	179065	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-4279	SampType:	LCS		TestCode:	EPA Method 245.1: Mercury				
Client ID:	LCSW	Batch ID:	4279		RunNo:	6215				
Prep Date:	10/12/2012	Analysis Date:	10/12/2012		SeqNo:	179066	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.0	80	120			

Sample ID	1210332-010EMS	SampType:	MS		TestCode:	EPA Method 245.1: Mercury				
Client ID:	BatchQC	Batch ID:	4279		RunNo:	6215				
Prep Date:	10/12/2012	Analysis Date:	10/12/2012		SeqNo:	179069	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.9	75	125			

Sample ID	1210332-010EMSD	SampType:	MSD		TestCode:	EPA Method 245.1: Mercury				
Client ID:	BatchQC	Batch ID:	4279		RunNo:	6215				
Prep Date:	10/12/2012	Analysis Date:	10/12/2012		SeqNo:	179072	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.7	75	125	0.749	20	

Sample ID	MB-4303	SampType:	mblk		TestCode:	EPA Method 245.1: Mercury				
Client ID:	PBW	Batch ID:	4303		RunNo:	6268				
Prep Date:	10/15/2012	Analysis Date:	10/15/2012		SeqNo:	180618	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-4303	SampType:	lcs		TestCode:	EPA Method 245.1: Mercury				
Client ID:	LCSW	Batch ID:	4303		RunNo:	6268				
Prep Date:	10/15/2012	Analysis Date:	10/15/2012		SeqNo:	180619	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	95.8	80	120			

Sample ID	1210352-007BMS	SampType:	ms		TestCode:	EPA Method 245.1: Mercury				
Client ID:	BatchQC	Batch ID:	4303		RunNo:	6268				
Prep Date:	10/15/2012	Analysis Date:	10/15/2012		SeqNo:	180639	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.00020	0.005000	0	93.6	75	125			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210352-007BMSD**	SampType: **msd**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **4303**	RunNo: **6268**
Prep Date: **10/15/2012**	Analysis Date: **10/15/2012**	SeqNo: **180642** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.00020	0.005000	0	94.2	75	125	0.680	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5979**	RunNo: **5979**
Prep Date:	Analysis Date: **10/4/2012**	SeqNo: **172224** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5979**	RunNo: **5979**
Prep Date:	Analysis Date: **10/4/2012**	SeqNo: **172225** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	103	90	110			
Chloride	5.0	0.50	5.000	0	99.2	90	110			
Sulfate	9.2	0.50	10.00	0	91.9	90	110			

Sample ID **1210279-013GMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **EB100212**	Batch ID: **R5979**	RunNo: **5979**
Prep Date:	Analysis Date: **10/4/2012**	SeqNo: **172240** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	100	76.6	110			
Chloride	4.7	0.50	5.000	0	94.0	87.8	111			

Sample ID **1210279-013GMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **EB100212**	Batch ID: **R5979**	RunNo: **5979**
Prep Date:	Analysis Date: **10/4/2012**	SeqNo: **172241** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	101	76.6	110	0.119	20	
Chloride	4.7	0.50	5.000	0	93.6	87.8	111	0.433	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5996**	RunNo: **5996**
Prep Date:	Analysis Date: **10/4/2012**	SeqNo: **172794** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5996**	RunNo: **5996**
Prep Date:	Analysis Date: **10/4/2012**	SeqNo: **172795** Units: **mg/L**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5996**	RunNo: **5996**
Prep Date:	Analysis Date: **10/4/2012**	SeqNo: **172795** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	96.0	90	110			
Sulfate	9.7	0.50	10.00	0	96.6	90	110			

Sample ID **1210285-001EMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5996**	RunNo: **5996**
Prep Date:	Analysis Date: **10/4/2012**	SeqNo: **172807** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.77	0.10	0.5000	0	155	76.6	110			S

Sample ID **1210285-001EMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5996**	RunNo: **5996**
Prep Date:	Analysis Date: **10/4/2012**	SeqNo: **172808** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.78	0.10	0.5000	0	155	76.6	110	0.271	20	S

Sample ID **1210300-001BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5996**	RunNo: **5996**
Prep Date:	Analysis Date: **10/4/2012**	SeqNo: **172812** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	15	0.50	10.00	8.924	62.0	84.6	122			S

Sample ID **1210300-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5996**	RunNo: **5996**
Prep Date:	Analysis Date: **10/4/2012**	SeqNo: **172813** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	15	0.50	10.00	8.924	62.3	84.6	122	0.201	20	S

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R5996**	RunNo: **5996**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **172858** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Sulfate	ND	0.50								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R5996**	RunNo: **5996**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **172859** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Sulfate	9.8	0.50	10.00	0	97.9	90	110			

Sample ID **1210301-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5996**	RunNo: **5996**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **172863** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.4	0.10	0.5000	0.8809	97.3	76.6	110			

Sample ID **1210301-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R5996**	RunNo: **5996**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **172864** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.4	0.10	0.5000	0.8809	97.0	76.6	110	0.110	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6149**	RunNo: **6149**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177130** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6149**	RunNo: **6149**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177131** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	98.3	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210279-012CMS** SampType: **MS** TestCode: **EPA Method 8015B: Diesel Range Organics**

Client ID: **SWMU 1-3 (19.5-20')** Batch ID: **4138** RunNo: **6027**

Prep Date: **10/5/2012** Analysis Date: **10/7/2012** SeqNo: **173631** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	51.28	0	80.5	57.2	146			
Surr: DNOP	4.1		5.128		79.6	77.6	140			

Sample ID **1210279-012CMSD** SampType: **MSD** TestCode: **EPA Method 8015B: Diesel Range Organics**

Client ID: **SWMU 1-3 (19.5-20')** Batch ID: **4138** RunNo: **6027**

Prep Date: **10/5/2012** Analysis Date: **10/7/2012** SeqNo: **173633** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	10	50.97	0	77.2	57.2	146	4.84	24.5	
Surr: DNOP	4.0		5.097		77.7	77.6	140	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4137**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **4137**	RunNo: **6039**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **174081** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		108	79.5	166			

Sample ID **LCS-4137**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **4137**	RunNo: **6039**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **174082** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.2	1.0	5.000	0	104	74	157			
Surr: DNOP	0.45		0.5000		90.2	79.5	166			

Sample ID **LCSD-4137**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **4137**	RunNo: **6039**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **174083** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.5	1.0	5.000	0	109	74	157	5.45	23	
Surr: DNOP	0.45		0.5000		90.8	79.5	166	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4015**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **4015**	RunNo: **6019**
Prep Date: **10/1/2012**	Analysis Date: **10/5/2012**	SeqNo: **173412** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		100	84	116			

Sample ID **LCS-4015**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **4015**	RunNo: **6019**
Prep Date: **10/1/2012**	Analysis Date: **10/5/2012**	SeqNo: **173413** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	74	117			
Surr: BFB	1000		1000		103	84	116			

Sample ID **1210002-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **4015**	RunNo: **6019**
Prep Date: **10/1/2012**	Analysis Date: **10/5/2012**	SeqNo: **173418** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.61	0	106	70	130			
Surr: BFB	1100		984.3		108	84	116			

Sample ID **1210002-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **4015**	RunNo: **6019**
Prep Date: **10/1/2012**	Analysis Date: **10/5/2012**	SeqNo: **173419** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.9	24.61	0	97.4	70	130	8.23	22.1	
Surr: BFB	1100		984.3		110	84	116	0	0	

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **R6020**	RunNo: **6020**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **173460** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		104	84	116			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R6020**	RunNo: **6020**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **173461** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.0	74	117			
Surr: BFB	820		1000		82.5	84	116			S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210279-011BMS**	SampType: **MS**			TestCode: **EPA Method 8015B: Gasoline Range**					
Client ID: **SWMU 1-3 (18.5-19.**	Batch ID: **R6020**			RunNo: **6020**					
Prep Date:	Analysis Date: **10/6/2012**			SeqNo: **173465**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	12	5.0	15.46	0	78.9	70	130			
Surr: BFB	670		618.5		108	84	116			

Sample ID **1210279-011BMSD**	SampType: **MSD**			TestCode: **EPA Method 8015B: Gasoline Range**					
Client ID: **SWMU 1-3 (18.5-19.**	Batch ID: **R6020**			RunNo: **6020**					
Prep Date:	Analysis Date: **10/6/2012**			SeqNo: **173466**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	14	5.0	15.46	0	90.8	70	130	14.0	22.1	
Surr: BFB	650		618.5		105	84	116	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R6020**	RunNo: **6020**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **173451** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	21		20.00		104	69.8	119			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R6144**	RunNo: **6144**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177071** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								

Qualifiers:

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

QC SUMMARY REPORT

WO#: **1210279**

Hall Environmental Analysis Laboratory, Inc.

14-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R6144**	RunNo: **6144**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177071** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
ichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.2	70	130			
Surr: 4-Bromofluorobenzene	0.39		0.5000		78.8	70	130			
Surr: Dibromofluoromethane	0.54		0.5000		107	70	130			
Surr: Toluene-d8	0.42		0.5000		84.4	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R6144**	RunNo: **6144**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177073** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.050	1.000	0	99.1	70	130			
Toluene	0.98	0.050	1.000	0	98.5	80	120			
Chlorobenzene	0.93	0.050	1.000	0	92.7	70	130			
1,1-Dichloroethene	1.0	0.050	1.000	0	104	74	124			
Trichloroethene (TCE)	0.92	0.050	1.000	0	92.3	70	130			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.2	70	130			
Surr: 4-Bromofluorobenzene	0.40		0.5000		79.4	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R6144**	RunNo: **6144**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177073** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.42		0.5000		83.9	70	130			

Sample ID **1210279-001B MS**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **SWMU 1-2 (6-8')**	Batch ID: **R6144**	RunNo: **6144**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177076** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.67	0.050	0.6719	0	99.5	80.9	118			
Toluene	0.57	0.050	0.6719	0	84.7	69.5	119			
Chlorobenzene	0.60	0.050	0.6719	0	89.8	75.7	115			
1,1-Dichloroethene	0.68	0.050	0.6719	0	101	68.6	126			
Trichloroethene (TCE)	0.65	0.050	0.6719	0	97.0	68.7	115			
Surr: 1,2-Dichloroethane-d4	0.29		0.3360		87.7	70	130			
Surr: 4-Bromofluorobenzene	0.26		0.3360		78.3	70	130			
Surr: Dibromofluoromethane	0.35		0.3360		103	70	130			
Surr: Toluene-d8	0.25		0.3360		74.4	70	130			

Sample ID **1210279-001B MSD**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **SWMU 1-2 (6-8')**	Batch ID: **R6144**	RunNo: **6144**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177077** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.68	0.050	0.6719	0	101	80.9	118	1.54	20	
Toluene	0.58	0.050	0.6719	0	85.9	69.5	119	1.42	20	
Chlorobenzene	0.63	0.050	0.6719	0	93.1	75.7	115	3.54	20	
1,1-Dichloroethene	0.68	0.050	0.6719	0	101	68.6	126	0.179	24.8	
Trichloroethene (TCE)	0.65	0.050	0.6719	0	97.2	68.7	115	0.171	20	
Surr: 1,2-Dichloroethane-d4	0.30		0.3360		89.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.25		0.3360		73.6	70	130	0	0	
Surr: Dibromofluoromethane	0.39		0.3360		117	70	130	0	0	
Surr: Toluene-d8	0.24		0.3360		72.6	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4139**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4139**	RunNo: **6123**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **176473** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
Naphthalene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
[illegible]ethane	ND	0.00100								
2-[illegible]anone	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								

[illegible]fiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4139**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4139**	RunNo: **6123**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **176473** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	43.5		50.00		86.9	70	130			
Surr: 4-Bromofluorobenzene	48.2		50.00		96.4	70	130			
Surr: Dibromofluoromethane	51.1		50.00		102	70	130			
Surr: Toluene-d8	48.6		50.00		97.1	70	130			

Sample ID **lcs-4139**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4139**	RunNo: **6123**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **176475** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	10.6	1.00	10.00	0	106	60	140			
Toluene	9.55	1.00	10.00	0	95.5	60	140			
Chlorobenzene	9.91	1.00	10.00	0	99.1	60	140			
1,1-Dichloroethene	11.6	1.00	10.00	0	116	60	140			
Trichloroethene (TCE)	9.40	1.00	10.00	0	94.0	60	140			
Surr: 1,2-Dichloroethane-d4	45.7		50.00		91.3	70	130			
Surr: 4-Bromofluorobenzene	39.6		50.00		79.3	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4139**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4139**	RunNo: **6123**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **176475** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	49.3		50.00		98.5	70	130			
Surr: Toluene-d8	47.1		50.00		94.2	70	130			

Qualifiers:

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

QC SUMMARY REPORT

WO#: **1210279**

Hall Environmental Analysis Laboratory, Inc.

14-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5993**	RunNo: **5993**
Prep Date:	Analysis Date: **10/4/2012**	SeqNo: **172673** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R5993**	RunNo: **5993**
Prep Date:	Analysis Date: **10/4/2012**	SeqNo: **172673** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
richlorobenzene	ND	1.0								
,,,-richloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		99.6	70	130			
Surr: 4-Bromofluorobenzene	9.3		10.00		93.4	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.1	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5993**	RunNo: **5993**
Prep Date:	Analysis Date: **10/4/2012**	SeqNo: **172697** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.9	70	130			
Toluene	22	1.0	20.00	0	112	80	120			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	101	73.7	122			
Trichloroethene (TCE)	22	1.0	20.00	0	108	70	130			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		89.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R5993**	RunNo: **5993**
Prep Date:	Analysis Date: **10/4/2012**	SeqNo: **172697** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.6		10.00		95.7	70	130			
Surr: Toluene-d8	10		10.00		99.5	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4140**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4140**	RunNo: **6106**
Prep Date: **10/5/2012**	Analysis Date: **10/9/2012**	SeqNo: **176018** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
ophenyl phenyl ether	ND	0.20								
benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4140**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4140**	RunNo: **6106**
Prep Date: **10/5/2012**	Analysis Date: **10/9/2012**	SeqNo: **176018** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	2.3		3.330		68.7	21.3	145			
Surr: 2-Fluorobiphenyl	0.94		1.670		56.2	20	131			
Surr: 2-Fluorophenol	2.0		3.330		59.6	11.9	130			
Surr: 4-Terphenyl-d14	0.96		1.670		57.5	25.1	149			
Surr: Nitrobenzene-d5	1.0		1.670		59.9	25.6	137			
Surr: Phenol-d5	2.1		3.330		62.9	20.3	132			

Sample ID **lcs-4140**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4140**	RunNo: **6106**
Prep Date: **10/5/2012**	Analysis Date: **10/9/2012**	SeqNo: **176019** Units: **mg/Kg**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4140**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4140**	RunNo: **6106**
Prep Date: **10/5/2012**	Analysis Date: **10/9/2012**	SeqNo: **176019** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	0.99	0.20	1.670	0	59.5	49.7	98.1			
4-Chloro-3-methylphenol	2.2	0.50	3.330	0	65.1	43.8	89.1			
2-Chlorophenol	1.9	0.20	3.330	0	57.0	41.1	96.9			
1,4-Dichlorobenzene	0.91	0.20	1.670	0	54.6	41	97.4			
2,4-Dinitrotoluene	1.2	0.50	1.670	0	70.7	44.4	104			
N-Nitrosodi-n-propylamine	1.1	0.20	1.670	0	65.0	39.1	86.9			
4-Nitrophenol	2.1	0.25	3.330	0	62.6	44.2	107			
Pentachlorophenol	1.5	0.40	3.330	0	44.9	36.2	80			
Phenol	2.0	0.20	3.330	0	60.0	42.7	92.7			
Pyrene	0.90	0.20	1.670	0	53.9	34.7	98.8			
1,2,4-Trichlorobenzene	0.88	0.20	1.670	0	52.9	37.8	98.3			
Surr: 2,4,6-Tribromophenol	2.5		3.330		74.6	21.3	145			
Surr: 2-Fluorobiphenyl	1.1		1.670		66.2	20	131			
Surr: 2-Fluorophenol	1.9		3.330		55.8	11.9	130			
Surr: 4-Terphenyl-d14	1.1		1.670		64.8	25.1	149			
Surr: Nitrobenzene-d5	1.0		1.670		60.3	25.6	137			
Phenol-d5	2.1		3.330		63.6	20.3	132			

Sample ID **1210279-012CMS**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **SWMU 1-3 (19.5-20')**	Batch ID: **4140**	RunNo: **6106**
Prep Date: **10/5/2012**	Analysis Date: **10/9/2012**	SeqNo: **176040** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.3	0.20	1.684	0	76.6	38.6	100			
4-Chloro-3-methylphenol	2.7	0.50	3.358	0	79.2	35.8	108			
2-Chlorophenol	2.4	0.20	3.358	0	72.3	48.2	96.1			
1,4-Dichlorobenzene	1.1	0.20	1.684	0	66.4	42.5	97.6			
2,4-Dinitrotoluene	1.6	0.50	1.684	0	92.4	51.2	108			
N-Nitrosodi-n-propylamine	1.1	0.20	1.684	0	67.5	31.6	114			
4-Nitrophenol	2.8	0.25	3.358	0	82.3	22.7	144			
Pentachlorophenol	2.1	0.40	3.358	0	61.1	24	109			
Phenol	2.6	0.20	3.358	0	76.4	33.1	108			
Pyrene	1.2	0.20	1.684	0	69.2	42.7	98.9			
1,2,4-Trichlorobenzene	1.1	0.20	1.684	0	64.3	27.1	118			
Surr: 2,4,6-Tribromophenol	2.9		3.358		86.1	21.3	145			
Surr: 2-Fluorobiphenyl	1.2		1.684		73.8	20	131			
Surr: 2-Fluorophenol	2.5		3.358		75.3	11.9	130			
Surr: 4-Terphenyl-d14	1.2		1.684		70.1	25.1	149			
Surr: Nitrobenzene-d5	1.2		1.684		73.1	25.6	137			
Surr: Phenol-d5	2.7		3.358		79.5	20.3	132			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210279-012CMSD** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **SWMU 1-3 (19.5-20')** Batch ID: **4140** RunNo: **6106**

Prep Date: **10/5/2012** Analysis Date: **10/9/2012** SeqNo: **176041** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.667	0	74.1	38.6	100	4.39	20	
4-Chloro-3-methylphenol	2.7	0.50	3.324	0	82.1	35.8	108	2.56	20	
2-Chlorophenol	2.3	0.20	3.324	0	68.8	48.2	96.1	5.93	20	
1,4-Dichlorobenzene	1.0	0.20	1.667	0	62.1	42.5	97.6	7.84	20	
2,4-Dinitrotoluene	1.6	0.50	1.667	0	95.5	51.2	108	2.29	20	
N-Nitrosodi-n-propylamine	1.1	0.20	1.667	0	66.7	31.6	114	2.25	20	
4-Nitrophenol	2.9	0.25	3.324	0	88.4	22.7	144	6.14	20	
Pentachlorophenol	2.1	0.40	3.324	0	64.0	24	109	3.56	20	
Phenol	2.3	0.20	3.324	0	69.6	33.1	108	10.3	20	
Pyrene	1.2	0.20	1.667	0	71.4	42.7	98.9	2.04	20	
1,2,4-Trichlorobenzene	1.1	0.20	1.667	0	66.7	27.1	118	2.65	20	
Surr: 2,4,6-Tribromophenol	3.0		3.324		89.8	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.2		1.667		71.8	20	131	0	0	
Surr: 2-Fluorophenol	2.4		3.324		72.3	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.2		1.667		72.5	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.3		1.667		76.8	25.6	137	0	0	
Surr: Phenol-d5	2.6		3.324		77.9	20.3	132	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4129**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4129**	RunNo: **6065**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **174758** Units: **µg/L**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4129**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4129**	RunNo: **6065**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **174758** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	180		200.0		88.6	44.2	126			
Surr: 2-Fluorobiphenyl	74		100.0		73.9	37	114			
Surr: 2-Fluorophenol	140		200.0		70.6	23.4	98			
Surr: 4-Terphenyl-d14	77		100.0		76.8	41.3	116			
Surr: Nitrobenzene-d5	90		100.0		89.6	39.5	118			
Surr: Phenol-d5	110		200.0		54.8	20.9	95.9			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4129**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **4129**	RunNo: **6065**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **174759** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	69	10	100.0	0	68.6	38.2	99.4			
4-Chloro-3-methylphenol	170	10	200.0	0	82.8	35.5	108			
2-Chlorophenol	150	10	200.0	0	75.2	29.8	106			
1,4-Dichlorobenzene	59	10	100.0	0	58.6	32.6	91.5			
2,4-Dinitrotoluene	87	10	100.0	0	87.2	44.7	112			
N-Nitrosodi-n-propylamine	74	10	100.0	0	73.7	38.5	105			
4-Nitrophenol	95	10	200.0	0	47.3	11.6	73.1			
Pentachlorophenol	110	20	200.0	0	55.9	20.2	93			
Phenol	96	10	200.0	0	48.1	23	66.1			
Pyrene	67	10	100.0	0	67.3	40.1	101			
1,2,4-Trichlorobenzene	63	10	100.0	0	63.3	37.7	99.1			
Surr: 2,4,6-Tribromophenol	180		200.0		88.8	44.2	126			
Surr: 2-Fluorobiphenyl	65		100.0		65.2	37	114			
Surr: 2-Fluorophenol	120		200.0		61.3	23.4	98			
Surr: 4-Terphenyl-d14	69		100.0		68.7	41.3	116			
Surr: Nitrobenzene-d5	78		100.0		78.2	39.5	118			
Phenol-d5	110		200.0		52.5	20.9	95.9			

Sample ID **lcsd-4129**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **4129**	RunNo: **6065**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **174760** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	70	10	100.0	0	70.5	38.2	99.4	2.79	20	
4-Chloro-3-methylphenol	170	10	200.0	0	85.2	35.5	108	2.83	20	
2-Chlorophenol	150	10	200.0	0	74.9	29.8	106	0.386	20	
1,4-Dichlorobenzene	60	10	100.0	0	59.7	32.6	91.5	1.93	20	
2,4-Dinitrotoluene	91	10	100.0	0	91.1	44.7	112	4.31	20	
N-Nitrosodi-n-propylamine	75	10	100.0	0	74.7	38.5	105	1.27	20	
4-Nitrophenol	100	10	200.0	0	50.7	11.6	73.1	6.98	20	
Pentachlorophenol	110	20	200.0	0	55.9	20.2	93	0.0536	20	
Phenol	89	10	200.0	0	44.7	23	66.1	7.41	20	
Pyrene	74	10	100.0	0	74.0	40.1	101	9.37	20	
1,2,4-Trichlorobenzene	64	10	100.0	0	63.9	37.7	99.1	0.943	20	
Surr: 2,4,6-Tribromophenol	170		200.0		84.4	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	65		100.0		65.0	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		55.6	23.4	98	0	0	
Surr: 4-Terphenyl-d14	75		100.0		75.1	41.3	116	0	0	
Surr: Nitrobenzene-d5	76		100.0		76.1	39.5	118	0	0	
Surr: Phenol-d5	94		200.0		47.1	20.9	95.9	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	MB-4086	SampType:	MBLK	TestCode:	EPA Method 7471: Mercury					
Client ID:	PBS	Batch ID:	4086	RunNo:	6082					
Prep Date:	10/8/2012	Analysis Date:	10/9/2012	SeqNo:	175476	Units:	mg/kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-4086	SampType:	LCS	TestCode:	EPA Method 7471: Mercury					
Client ID:	LCSS	Batch ID:	4086	RunNo:	6082					
Prep Date:	10/8/2012	Analysis Date:	10/9/2012	SeqNo:	175477	Units:	mg/kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	104	80	120			

Sample ID	1210279-008CMS	SampType:	MS	TestCode:	EPA Method 7471: Mercury					
Client ID:	SWMU 1-3 (2-4')	Batch ID:	4086	RunNo:	6082					
Prep Date:	10/8/2012	Analysis Date:	10/9/2012	SeqNo:	175510	Units:	mg/kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.15	0.033	0.1665	0.01287	84.9	75	125			

Sample ID	1210279-008CMSD	SampType:	MSD	TestCode:	EPA Method 7471: Mercury					
Client ID:	SWMU 1-3 (2-4')	Batch ID:	4086	RunNo:	6082					
Prep Date:	10/8/2012	Analysis Date:	10/9/2012	SeqNo:	175511	Units:	mg/kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.15	0.033	0.1686	0.01287	82.8	75	125	1.08	20	

Sample ID	MB-4150	SampType:	MBLK	TestCode:	EPA Method 7471: Mercury					
Client ID:	PBS	Batch ID:	4150	RunNo:	6082					
Prep Date:	10/8/2012	Analysis Date:	10/9/2012	SeqNo:	175512	Units:	mg/kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-4150	SampType:	LCS	TestCode:	EPA Method 7471: Mercury					
Client ID:	LCSS	Batch ID:	4150	RunNo:	6082					
Prep Date:	10/8/2012	Analysis Date:	10/9/2012	SeqNo:	175513	Units:	mg/kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.19	0.033	0.1667	0	117	80	120			

Sample ID	1210332-015CMS	SampType:	MS	TestCode:	EPA Method 7471: Mercury					
Client ID:	BatchQC	Batch ID:	4150	RunNo:	6082					
Prep Date:	10/8/2012	Analysis Date:	10/9/2012	SeqNo:	175534	Units:	mg/kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1635	0	108	75	125			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	**1210332-015CMSD**	SampType: **MSD**		TestCode: **EPA Method 7471: Mercury**						
Client ID:	**BatchQC**	Batch ID: **4150**		RunNo: **6082**						
Prep Date:	**10/8/2012**	Analysis Date: **10/9/2012**		SeqNo: **175535**		Units: **mg/kg**				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.18	0.033	0.1662	0	108	75	125	1.95	20	

fiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4300**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **4300**	RunNo: **6281**
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **181006** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID **LCS-4300**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **4300**	RunNo: **6281**
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **181012** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	24	2.5	25.00	0.9150	90.4	80	120			
Arsenic	27	2.5	25.00	0	107	80	120			
Barium	25	0.10	25.00	0	101	80	120			
Beryllium	27	0.15	25.00	0	108	80	120			
Cadmium	26	0.10	25.00	0	104	80	120			
Chromium	25	0.30	25.00	0	100	80	120			
Cobalt	25	0.30	25.00	0	100	80	120			
Lead	26	0.25	25.00	0	103	80	120			
Manganese	25	0.10	25.00	0.05000	99.4	80	120			
Nickel	25	0.50	25.00	0	99.0	80	120			
Selenium	26	2.5	25.00	0	105	80	120			
Silver	5.2	0.25	5.000	0	104	80	120			
Vanadium	26	2.5	25.00	0	103	80	120			
Zinc	26	2.5	25.00	0	104	80	120			

Sample ID **MB-4300**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **4300**	RunNo: **6310**
Prep Date: **10/15/2012**	Analysis Date: **10/17/2012**	SeqNo: **181592** Units: **mg/Kg**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **LCS-4300**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **4300**	RunNo: **6310**
Prep Date: **10/15/2012**	Analysis Date: **10/17/2012**	SeqNo: **181593** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	27	1.0	25.00	0	108	80	120			

Sample ID **1210583-001CMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC**	Batch ID: **4300**	RunNo: **6310**
Prep Date: **10/15/2012**	Analysis Date: **10/17/2012**	SeqNo: **181667** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	25	0.75	24.84	0.8953	96.7	75	125			
Cadmium	22	0.50	24.84	0	90.2	75	125			
Chromium	31	1.5	24.84	12.41	74.0	75	125			S
Cobalt	26	1.5	24.84	5.546	80.5	75	125			
Lead	26	1.3	24.84	5.875	81.9	75	125			
Nickel	29	2.5	24.84	8.319	83.0	75	125			
Silver	4.6	1.3	4.967	0	92.2	75	125			
Vanadium	47	13	24.84	25.45	86.0	75	125			
Zinc	49	13	24.84	33.40	64.7	75	125			S

Sample ID **1210583-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC**	Batch ID: **4300**	RunNo: **6310**
Prep Date: **10/15/2012**	Analysis Date: **10/17/2012**	SeqNo: **181668** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	26	0.75	24.89	0.8953	101	75	125	4.27	20	
Cadmium	23	0.50	24.89	0	94.2	75	125	4.55	20	
Chromium	33	1.5	24.89	12.41	83.0	75	125	7.15	20	
Cobalt	27	1.5	24.89	5.546	85.8	75	125	5.17	20	
Lead	28	1.2	24.89	5.875	87.0	75	125	4.93	20	
Nickel	30	2.5	24.89	8.319	88.6	75	125	4.90	20	
Silver	4.9	1.2	4.978	0	98.0	75	125	6.31	20	
Vanadium	48	12	24.89	25.45	91.4	75	125	2.90	20	
Zinc	58	12	24.89	33.40	98.3	75	125	15.6	20	

Sample ID **1210583-001CMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC**	Batch ID: **4300**	RunNo: **6437**
Prep Date: **10/15/2012**	Analysis Date: **10/23/2012**	SeqNo: **185157** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	12	24.84	0	30.6	75	125			S
Arsenic	25	12	24.84	0	102	75	125			
Selenium	13	12	24.84	0	53.6	75	125			S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210279**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	**1210583-001CMSD**	SampType: **MSD**		TestCode: **EPA Method 6010B: Soil Metals**						
Client ID:	**BatchQC**	Batch ID: **4300**		RunNo: **6437**						
Prep Date:	**10/15/2012**	Analysis Date: **10/23/2012**		SeqNo: **185160**		Units: **mg/Kg**				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony		ND	12	24.89	0	34.4	75	125	0	20	S
Arsenic		26	12	24.89	0	105	75	125	3.33	20	
Selenium		16	12	24.89	0	62.7	75	125	16.0	20	S

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1210279

Received by/date: MM 10/04/12

Logged By: Ashley Gallegos 10/4/2012 8:00:00 AM

Completed By: Ashley Gallegos 10/4/2012 9:13:43 AM

Reviewed By: IO 10/04/12

Chain of Custody

1. Were seals intact?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	FedEx		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☑	
10. Was preservative added to bottles?	Yes ☑	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

006E-ADDED 3mL HNO3 FOR ACCEPTABLE pH - 006F-ADDED 2 PELLETS NaOH FOR ACCEPTABLE pH 10/04/12

# of preserved bottles checked for pH: 2 2 (<2 or >12 unless noted)

Adjusted? YES

Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SOUTHWEST, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: [X] Yes [ ] No
Sample Temperature: 7.0

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210279	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
~~10/2/12~~	~~1000~~	~~SOIL~~	~~SWMU 1-2 (6-8')~~																			
10/2/12	1000	SOIL	SWMU 1-2 (6-8')	2 VIALS	SOBI	-001										X						
				2 VIALS	MeOH											X						
	↓		↓	3 JARS	—											X	X	X	X			
	1020		SWMU 1-2 (10-11')	2 VIALS	SOBI	-002										X						
	↓		↓	2 VIALS	MeOH											X						
	↓		↓	3 JARS	—											X	X	X	X			
	1035		SWMU 1-2 (14-16')	2 VIALS	SOBI	-003										X						
	↓		↓	2 VIALS	MeOH											X						
	↓		↓	3 JARS	—											X	X	X	X			
	1050		SWMU 1-2 (17-17.25')	2 VIALS	SOBI	-004										X						
	↓		↓	2 VIALS	MeOH											X						
↓	↓	↓	↓	3 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/3/12	0707	[signature]	[signature]	10/04/12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE-RPS
On Ice: [illegible] Rates
Sample Temperature: [illegible]

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210479
10/2/12	1105	SOIL	SWMU 1-2 (19.5-20)	2 VIALS	8081	-005
				2 VIALS	MeOH	
				2 JARS	-	
	1345	GW	SWMU 1-2 GW	6 VOA	HCL/NEAT	-006
				1 LAMBER	-	
				PLASTIC	-	
				PLASTIC	HNO_3	
				PLASTIC	NAOH	
10/2/12	—	WATER	TRIP BLANK	3 VOA	HCL	-007

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
									X						
									X						
									X	X	X	X			
									X						
										X					
												X			
												X			
												X			
									X						

Date: 10/3/12 Time: 0707 Relinquished by: [signature]
Date: Time: Relinquished by:

Received by: [signature] Date: 10/4/12 Time: 0800
Received by: Date: Time:

Remarks:

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

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: ☒ Yes ☐ No
Sample Temperature: 4°

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210979	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH+MRO & DRO	METALS			Air Bubbles (Y or N)
~~10/2/12~~ 10/2/12	1620	SOIL	SWMU 1-3 (2-4')	2 VIALS	SOBI	-008										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1635		SWMU 1-3 (10-11')	2 VIALS	SOBI	-009										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1650		SWMU 1-3 (11-11.25')	2 VIALS	SOBI	-010										X						
				2 VIALS	MeOH											X						
				1 JAR	—											X	X	X	X			
	1710		SWMU 1-3 (18.5-19.5')	2 VIALS	SOBI	-011										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			

Date: 10/3/12 Time: 0711 Relinquished by: [signature]
Received by: [signature] Date: 10/04/12 Time: 0800

Date: Time: Relinquished by:
Received by: Date: Time:

Remarks:

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

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: [X] Yes [ ] No
Sample Temperature: 1.1 °C

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210279	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH + MRO & DRO	METALS			Air Bubbles (Y or N)
10/2/12	1725	SOIL	SWMU 1-3 (19.5-20)	2 VIALS	SOB1	-012										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1745	WATER	EB100212	6 VOA	HCL/NEAT	-013										X						
				1 AMBER	—												X					
				1 PLASTIC	—														X			
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NaOH														X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/3/12	0711		Michelle Gonzales	10/04/12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

November 14, 2012

Scott Crouch
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.1 OrderNo.: 1210332

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 15 sample(s) on 10/5/2012 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued October 29, 2012.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1210332**
Date Reported: **11/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (10-12')DUP
Collection Date: 10/3/2012 1:15:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/8/2012 9:31:27 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/8/2012 9:31:27 AM
Surr: DNOP	95.9	77.6-140		%REC	1	10/8/2012 9:31:27 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2012 5:39:05 PM
Surr: BFB	108	84-116		%REC	1	10/6/2012 5:39:05 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 11:08:22 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 9:55:44 AM
Arsenic	ND	12		mg/Kg	5	10/11/2012 9:55:44 AM
Barium	870	5.0		mg/Kg	50	10/11/2012 11:42:40 AM
Beryllium	ND	0.75		mg/Kg	5	10/11/2012 9:55:44 AM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 9:55:44 AM
Chromium	6.4	1.5		mg/Kg	5	10/11/2012 9:55:44 AM
Cobalt	3.1	1.5		mg/Kg	5	10/11/2012 9:55:44 AM
Iron	9200	500		mg/Kg	500	10/11/2012 11:45:05 AM
Lead	4.4	1.2		mg/Kg	5	10/11/2012 9:55:44 AM
Manganese	1400	5.0		mg/Kg	50	10/11/2012 11:42:40 AM
Nickel	5.0	2.5		mg/Kg	5	10/11/2012 9:55:44 AM
Selenium	ND	12		mg/Kg	5	10/11/2012 9:55:44 AM
Silver	ND	1.2		mg/Kg	5	10/11/2012 9:55:44 AM
Vanadium	19	12		mg/Kg	5	10/11/2012 9:55:44 AM
Zinc	ND	12		mg/Kg	5	10/11/2012 9:55:44 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Aniline	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Anthracene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Azobenzene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Benzoic acid	ND	0.49		mg/Kg	1	10/9/2012 7:22:09 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (10-12')DUP
Collection Date: 10/3/2012 1:15:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.49		mg/Kg	1	10/9/2012 7:22:09 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Carbazole	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
4-Chloro-3-methylphenol	ND	0.49		mg/Kg	1	10/9/2012 7:22:09 PM
4-Chloroaniline	ND	0.49		mg/Kg	1	10/9/2012 7:22:09 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/9/2012 7:22:09 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Chrysene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Di-n-butyl phthalate	ND	0.49		mg/Kg	1	10/9/2012 7:22:09 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/9/2012 7:22:09 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/9/2012 7:22:09 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 7:22:09 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/9/2012 7:22:09 PM
4,6-Dinitro-2-methylphenol	ND	0.49		mg/Kg	1	10/9/2012 7:22:09 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/9/2012 7:22:09 PM
2,4-Dinitrotoluene	ND	0.49		mg/Kg	1	10/9/2012 7:22:09 PM
2,6-Dinitrotoluene	ND	0.49		mg/Kg	1	10/9/2012 7:22:09 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Fluorene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Isophorone	ND	0.49		mg/Kg	1	10/9/2012 7:22:09 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
2-Methylphenol	ND	0.49		mg/Kg	1	10/9/2012 7:22:09 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Naphthalene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (10-12')DUP
Collection Date: 10/3/2012 1:15:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 7:22:09 PM
Nitrobenzene	ND	0.49		mg/Kg	1	10/9/2012 7:22:09 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/9/2012 7:22:09 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/9/2012 7:22:09 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Phenol	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Pyrene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Pyridine	ND	0.49		mg/Kg	1	10/9/2012 7:22:09 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 7:22:09 PM
Surr: 2,4,6-Tribromophenol	83.5	21.3-145		%REC	1	10/9/2012 7:22:09 PM
Surr: 2-Fluorobiphenyl	75.5	20-131		%REC	1	10/9/2012 7:22:09 PM
Surr: 2-Fluorophenol	80.0	11.9-130		%REC	1	10/9/2012 7:22:09 PM
Surr: 4-Terphenyl-d14	66.4	25.1-149		%REC	1	10/9/2012 7:22:09 PM
Surr: Nitrobenzene-d5	73.6	25.6-137		%REC	1	10/9/2012 7:22:09 PM
Surr: Phenol-d5	83.3	20.3-132		%REC	1	10/9/2012 7:22:09 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Toluene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Ethylbenzene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Xylenes, Total	ND	0.00197		mg/Kg	1	10/8/2012 9:56:35 PM
Methyl tert-butyl ether (MTBE)	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,2,4-Trimethylbenzene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,3,5-Trimethylbenzene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,2-Dichloroethane (EDC)	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,2-Dibromoethane (EDB)	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Naphthalene	ND	0.00197		mg/Kg	1	10/8/2012 9:56:35 PM
1-Methylnaphthalene	ND	0.00395		mg/Kg	1	10/8/2012 9:56:35 PM
2-Methylnaphthalene	ND	0.00395		mg/Kg	1	10/8/2012 9:56:35 PM
Acetone	0.0116	0.00986		mg/Kg	1	10/8/2012 9:56:35 PM
Bromobenzene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Bromodichloromethane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Bromoform	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Bromomethane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
2-Butanone	ND	0.00986		mg/Kg	1	10/8/2012 9:56:35 PM
Carbon tetrachloride	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Chlorobenzene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Chloroethane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-4 (10-12')DUP
Project: SWMU NO.1
Collection Date: 10/3/2012 1:15:00 PM
Lab ID: 1210332-001 **Matrix:** SOIL **Received Date:** 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Chloromethane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
2-Chlorotoluene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Carbon disulfide	ND	0.00986		mg/Kg	1	10/8/2012 9:56:35 PM
4-Chlorotoluene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
cis-1,2-DCE	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
cis-1,3-Dichloropropene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,2-Dibromo-3-chloropropane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Dibromochloromethane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Dibromomethane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,2-Dichlorobenzene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,3-Dichlorobenzene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,4-Dichlorobenzene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Dichlorodifluoromethane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,1-Dichloroethane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,1-Dichloroethene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,2-Dichloropropane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,3-Dichloropropane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
2,2-Dichloropropane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,1-Dichloropropene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Hexachlorobutadiene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Isopropylbenzene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
4-Isopropyltoluene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Methylene chloride	ND	0.00296		mg/Kg	1	10/8/2012 9:56:35 PM
n-Butylbenzene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
2-Hexanone	ND	0.00986		mg/Kg	1	10/8/2012 9:56:35 PM
n-Propylbenzene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
sec-Butylbenzene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Styrene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
4-Methyl-2-pentanone	ND	0.00986		mg/Kg	1	10/8/2012 9:56:35 PM
tert-Butylbenzene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,1,1,2-Tetrachloroethane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,1,2,2-Tetrachloroethane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Tetrachloroethene (PCE)	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
trans-1,2-DCE	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
trans-1,3-Dichloropropene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,2,3-Trichlorobenzene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,2,4-Trichlorobenzene	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,1,1-Trichloroethane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
1,1,2-Trichloroethane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Trichloroethene (TCE)	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Trichlorofluoromethane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Vinyl chloride	ND	0.000986		mg/Kg	1	10/8/2012 9:56:35 PM
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%REC	1	10/8/2012 9:56:35 PM
Surr: 4-Bromofluorobenzene	93.4	70-130		%REC	1	10/8/2012 9:56:35 PM
Surr: Dibromofluoromethane	91.9	70-130		%REC	1	10/8/2012 9:56:35 PM
Surr: Toluene-d8	92.7	70-130		%REC	1	10/8/2012 9:56:35 PM

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-4 (17-18')
Project: SWMU NO.1
Collection Date: 10/3/2012 1:45:00 PM
Lab ID: 1210332-002 **Matrix:** SOIL **Received Date:** 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/6/2012 9:43:43 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/6/2012 9:43:43 PM
Surr: DNOP	91.0	77.6-140		%REC	1	10/6/2012 9:43:43 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	13	5.0		mg/Kg	1	10/6/2012 6:09:29 PM
Surr: BFB	105	84-116		%REC	1	10/6/2012 6:09:29 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 11:10:08 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 10:00:49 AM
Arsenic	ND	12		mg/Kg	5	10/11/2012 10:00:49 AM
Barium	370	5.0		mg/Kg	50	10/11/2012 11:48:01 AM
Beryllium	ND	0.75		mg/Kg	5	10/11/2012 10:00:49 AM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 10:00:49 AM
Chromium	7.9	1.5		mg/Kg	5	10/11/2012 10:00:49 AM
Cobalt	3.9	1.5		mg/Kg	5	10/11/2012 10:00:49 AM
Iron	10000	500		mg/Kg	500	10/11/2012 11:50:28 AM
Lead	2.7	1.2		mg/Kg	5	10/11/2012 10:00:49 AM
Manganese	570	5.0		mg/Kg	50	10/11/2012 11:48:01 AM
Nickel	6.0	2.5		mg/Kg	5	10/11/2012 10:00:49 AM
Selenium	ND	12		mg/Kg	5	10/11/2012 10:00:49 AM
Silver	ND	1.2		mg/Kg	5	10/11/2012 10:00:49 AM
Vanadium	17	12		mg/Kg	5	10/11/2012 10:00:49 AM
Zinc	17	12		mg/Kg	5	10/11/2012 10:00:49 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Aniline	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Anthracene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Azobenzene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/9/2012 7:51:52 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-4 (17-18')
Project: SWMU NO.1
Collection Date: 10/3/2012 1:45:00 PM
Lab ID: 1210332-002 **Matrix:** SOIL **Received Date:** 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/9/2012 7:51:52 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Carbazole	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 7:51:52 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/9/2012 7:51:52 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/9/2012 7:51:52 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Chrysene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/9/2012 7:51:52 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/9/2012 7:51:52 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/9/2012 7:51:52 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 7:51:52 PM
2,4-Dimethylphenol	0.64	0.30		mg/Kg	1	10/9/2012 7:51:52 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 7:51:52 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/9/2012 7:51:52 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 7:51:52 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 7:51:52 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Fluorene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Isophorone	ND	0.50		mg/Kg	1	10/9/2012 7:51:52 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
2-Methylnaphthalene	0.27	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/9/2012 7:51:52 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Naphthalene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (17-18')
Collection Date: 10/3/2012 1:45:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 7:51:52 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/9/2012 7:51:52 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/9/2012 7:51:52 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/9/2012 7:51:52 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Phenol	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Pyrene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Pyridine	ND	0.50		mg/Kg	1	10/9/2012 7:51:52 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 7:51:52 PM
Surr: 2,4,6-Tribromophenol	109	21.3-145		%REC	1	10/9/2012 7:51:52 PM
Surr: 2-Fluorobiphenyl	93.8	20-131		%REC	1	10/9/2012 7:51:52 PM
Surr: 2-Fluorophenol	99.7	11.9-130		%REC	1	10/9/2012 7:51:52 PM
Surr: 4-Terphenyl-d14	79.3	25.1-149		%REC	1	10/9/2012 7:51:52 PM
Surr: Nitrobenzene-d5	97.5	25.6-137		%REC	1	10/9/2012 7:51:52 PM
Surr: Phenol-d5	98.0	20.3-132		%REC	1	10/9/2012 7:51:52 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
Toluene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
Ethylbenzene	0.050	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
1,2,4-Trimethylbenzene	0.25	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
1,3,5-Trimethylbenzene	0.073	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
Naphthalene	0.40	0.10		mg/Kg	1	10/15/2012 7:49:26 PM
1-Methylnaphthalene	0.55	0.20		mg/Kg	1	10/15/2012 7:49:26 PM
2-Methylnaphthalene	0.93	0.20		mg/Kg	1	10/15/2012 7:49:26 PM
Acetone	ND	0.75		mg/Kg	1	10/15/2012 7:49:26 PM
Bromobenzene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
Bromoform	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
Bromomethane	ND	0.15		mg/Kg	1	10/15/2012 7:49:26 PM
2-Butanone	ND	0.50		mg/Kg	1	10/15/2012 7:49:26 PM
Carbon disulfide	ND	0.50		mg/Kg	1	10/15/2012 7:49:26 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	10/15/2012 7:49:26 PM
Chlorobenzene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
Chloroethane	ND	0.10		mg/Kg	1	10/15/2012 7:49:26 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (17-18')
Collection Date: 10/3/2012 1:45:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Chloroform	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
Chloromethane	ND	0.15		mg/Kg	1	10/15/2012 7:49:26 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	10/15/2012 7:49:26 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
Dibromomethane	ND	0.10		mg/Kg	1	10/15/2012 7:49:26 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	10/15/2012 7:49:26 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	10/15/2012 7:49:26 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	10/15/2012 7:49:26 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	10/15/2012 7:49:26 PM
2-Hexanone	ND	0.50		mg/Kg	1	10/15/2012 7:49:26 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	10/15/2012 7:49:26 PM
Methylene chloride	ND	0.15		mg/Kg	1	10/15/2012 7:49:26 PM
n-Butylbenzene	ND	0.15		mg/Kg	1	10/15/2012 7:49:26 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
Styrene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	10/15/2012 7:49:26 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	10/15/2012 7:49:26 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (17-18')
Collection Date: 10/3/2012 1:45:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Vinyl chloride	ND	0.050		mg/Kg	1	10/15/2012 7:49:26 PM
Xylenes, Total	0.35	0.10		mg/Kg	1	10/15/2012 7:49:26 PM
Surr: 1,2-Dichloroethane-d4	95.3	70-130		%REC	1	10/15/2012 7:49:26 PM
Surr: 4-Bromofluorobenzene	89.7	70-130		%REC	1	10/15/2012 7:49:26 PM
Surr: Dibromofluoromethane	91.8	70-130		%REC	1	10/15/2012 7:49:26 PM
Surr: Toluene-d8	98.6	70-130		%REC	1	10/15/2012 7:49:26 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (23-24')
Collection Date: 10/3/2012 2:00:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/6/2012 10:08:49 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/6/2012 10:08:49 PM
Surr: DNOP	89.2	77.6-140		%REC	1	10/6/2012 10:08:49 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2012 6:25:18 AM
Surr: BFB	85.7	84-116		%REC	1	10/6/2012 6:25:18 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 11:11:55 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 10:16:19 AM
Arsenic	ND	12		mg/Kg	5	10/11/2012 10:16:19 AM
Barium	200	0.50		mg/Kg	5	10/11/2012 10:16:19 AM
Beryllium	1.1	0.75		mg/Kg	5	10/11/2012 10:16:19 AM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 10:16:19 AM
Chromium	14	1.5		mg/Kg	5	10/11/2012 10:16:19 AM
Cobalt	5.9	1.5		mg/Kg	5	10/11/2012 10:16:19 AM
Iron	18000	500		mg/Kg	500	10/11/2012 12:08:30 PM
Lead	2.1	1.2		mg/Kg	5	10/11/2012 10:16:19 AM
Manganese	340	1.0		mg/Kg	10	10/11/2012 12:06:07 PM
Nickel	12	2.5		mg/Kg	5	10/11/2012 10:16:19 AM
Selenium	ND	12		mg/Kg	5	10/11/2012 10:16:19 AM
Silver	ND	1.2		mg/Kg	5	10/11/2012 10:16:19 AM
Vanadium	15	12		mg/Kg	5	10/11/2012 10:16:19 AM
Zinc	26	12		mg/Kg	5	10/11/2012 10:16:19 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Aniline	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Anthracene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Azobenzene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/9/2012 8:21:38 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (23-24')
Collection Date: 10/3/2012 2:00:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/9/2012 8:21:38 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Carbazole	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 8:21:38 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/9/2012 8:21:38 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/9/2012 8:21:38 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Chrysene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/9/2012 8:21:38 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/9/2012 8:21:38 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/9/2012 8:21:38 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 8:21:38 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/9/2012 8:21:38 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 8:21:38 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/9/2012 8:21:38 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 8:21:38 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 8:21:38 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Fluorene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Isophorone	ND	0.50		mg/Kg	1	10/9/2012 8:21:38 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/9/2012 8:21:38 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Naphthalene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (23-24')
Collection Date: 10/3/2012 2:00:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 8:21:38 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/9/2012 8:21:38 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/9/2012 8:21:38 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/9/2012 8:21:38 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Phenol	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Pyrene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Pyridine	ND	0.50		mg/Kg	1	10/9/2012 8:21:38 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 8:21:38 PM
Surr: 2,4,6-Tribromophenol	90.5	21.3-145		%REC	1	10/9/2012 8:21:38 PM
Surr: 2-Fluorobiphenyl	80.2	20-131		%REC	1	10/9/2012 8:21:38 PM
Surr: 2-Fluorophenol	88.2	11.9-130		%REC	1	10/9/2012 8:21:38 PM
Surr: 4-Terphenyl-d14	81.6	25.1-149		%REC	1	10/9/2012 8:21:38 PM
Surr: Nitrobenzene-d5	79.5	25.6-137		%REC	1	10/9/2012 8:21:38 PM
Surr: Phenol-d5	86.5	20.3-132		%REC	1	10/9/2012 8:21:38 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00566	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Toluene	0.00275	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Ethylbenzene	0.00125	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Xylenes, Total	0.00218	0.00183		mg/Kg	1	10/8/2012 10:27:25 PM
Methyl tert-butyl ether (MTBE)	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,2,4-Trimethylbenzene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,3,5-Trimethylbenzene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,2-Dichloroethane (EDC)	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,2-Dibromoethane (EDB)	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Naphthalene	ND	0.00183		mg/Kg	1	10/8/2012 10:27:25 PM
1-Methylnaphthalene	ND	0.00366		mg/Kg	1	10/8/2012 10:27:25 PM
2-Methylnaphthalene	ND	0.00366		mg/Kg	1	10/8/2012 10:27:25 PM
Acetone	0.0173	0.00915		mg/Kg	1	10/8/2012 10:27:25 PM
Bromobenzene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Bromodichloromethane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Bromoform	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Bromomethane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
2-Butanone	ND	0.00915		mg/Kg	1	10/8/2012 10:27:25 PM
Carbon tetrachloride	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Chlorobenzene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Chloroethane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (23-24')
Collection Date: 10/3/2012 2:00:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Chloromethane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
2-Chlorotoluene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Carbon disulfide	ND	0.00915		mg/Kg	1	10/8/2012 10:27:25 PM
4-Chlorotoluene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
cis-1,2-DCE	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
cis-1,3-Dichloropropene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,2-Dibromo-3-chloropropane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Dibromochloromethane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Dibromomethane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,2-Dichlorobenzene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,3-Dichlorobenzene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,4-Dichlorobenzene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Dichlorodifluoromethane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,1-Dichloroethane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,1-Dichloroethene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,2-Dichloropropane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,3-Dichloropropane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
2,2-Dichloropropane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,1-Dichloropropene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Hexachlorobutadiene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Isopropylbenzene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
4-Isopropyltoluene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Methylene chloride	ND	0.00275		mg/Kg	1	10/8/2012 10:27:25 PM
n-Butylbenzene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
2-Hexanone	ND	0.00915		mg/Kg	1	10/8/2012 10:27:25 PM
n-Propylbenzene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
sec-Butylbenzene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Styrene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
4-Methyl-2-pentanone	ND	0.00915		mg/Kg	1	10/8/2012 10:27:25 PM
tert-Butylbenzene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,1,1,2-Tetrachloroethane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,1,2,2-Tetrachloroethane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Tetrachloroethene (PCE)	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
trans-1,2-DCE	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
trans-1,3-Dichloropropene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,2,3-Trichlorobenzene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,2,4-Trichlorobenzene	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,1,1-Trichloroethane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
1,1,2-Trichloroethane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Trichloroethene (TCE)	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Trichlorofluoromethane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (23-24')
Collection Date: 10/3/2012 2:00:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Vinyl chloride	ND	0.000915		mg/Kg	1	10/8/2012 10:27:25 PM
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%REC	1	10/8/2012 10:27:25 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	10/8/2012 10:27:25 PM
Surr: Dibromofluoromethane	92.2	70-130		%REC	1	10/8/2012 10:27:25 PM
Surr: Toluene-d8	95.4	70-130		%REC	1	10/8/2012 10:27:25 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: SWMU NO.1
Collection Date:
Lab ID: 1210332-004
Matrix: TRIP BLANK
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
Toluene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
Ethylbenzene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
Naphthalene	ND	2.0		µg/L	1	10/5/2012 7:34:04 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/5/2012 7:34:04 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/5/2012 7:34:04 PM
Acetone	ND	10		µg/L	1	10/5/2012 7:34:04 PM
Bromobenzene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
Bromoform	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
Bromomethane	ND	3.0		µg/L	1	10/5/2012 7:34:04 PM
2-Butanone	ND	10		µg/L	1	10/5/2012 7:34:04 PM
Carbon disulfide	ND	10		µg/L	1	10/5/2012 7:34:04 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
Chlorobenzene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
Chloroethane	ND	2.0		µg/L	1	10/5/2012 7:34:04 PM
Chloroform	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
Chloromethane	ND	3.0		µg/L	1	10/5/2012 7:34:04 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/5/2012 7:34:04 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
Dibromomethane	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/5/2012 7:34:04 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
2-Hexanone	ND	10		µg/L	1	10/5/2012 7:34:04 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: SWMU NO.1
Collection Date:
Lab ID: 1210332-004
Matrix: TRIP BLANK
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/5/2012 7:34:04 PM
Methylene Chloride	ND	3.0		µg/L	1	10/5/2012 7:34:04 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/5/2012 7:34:04 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
Styrene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/5/2012 7:34:04 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/5/2012 7:34:04 PM
Vinyl chloride	ND	1.0		µg/L	1	10/5/2012 7:34:04 PM
Xylenes, Total	ND	1.5		µg/L	1	10/5/2012 7:34:04 PM
Surr: 1,2-Dichloroethane-d4	83.8	70-130		%REC	1	10/5/2012 7:34:04 PM
Surr: 4-Bromofluorobenzene	82.2	70-130		%REC	1	10/5/2012 7:34:04 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	10/5/2012 7:34:04 PM
Surr: Toluene-d8	78.4	70-130		%REC	1	10/5/2012 7:34:04 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-005 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-3 GW
Collection Date: 10/3/2012 9:30:00 AM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/8/2012 12:52:54 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/8/2012 12:52:54 PM
Surr: DNOP	119	79.5-166		%REC	1	10/8/2012 12:52:54 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.65	0.10		mg/L	2	10/6/2012 4:08:36 PM
Surr: BFB	114	69.8-119		%REC	2	10/6/2012 4:08:36 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	0.89	0.10		mg/L	1	10/5/2012 8:47:29 PM
Chloride	1600	50		mg/L	100	10/11/2012 7:33:27 PM
Sulfate	810	10		mg/L	20	10/5/2012 8:59:53 PM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Barium	0.54	0.0020		mg/L	1	10/16/2012 7:38:43 AM
Beryllium	0.0066	0.0020	*	mg/L	1	10/16/2012 7:38:43 AM
Cadmium	ND	0.0020		mg/L	1	10/16/2012 7:38:43 AM
Chromium	0.015	0.0060		mg/L	1	10/16/2012 7:38:43 AM
Cobalt	0.043	0.0060		mg/L	1	10/16/2012 7:38:43 AM
Iron	20	1.0	*	mg/L	50	10/16/2012 8:03:15 AM
Manganese	2.1	0.010	*	mg/L	5	10/16/2012 7:42:12 AM
Nickel	0.35	0.010	*	mg/L	1	10/16/2012 7:38:43 AM
Silver	ND	0.0050		mg/L	1	10/16/2012 7:38:43 AM
Vanadium	ND	0.050		mg/L	1	10/16/2012 7:38:43 AM
Zinc	0.068	0.010		mg/L	1	10/16/2012 7:38:43 AM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0025		mg/L	2.5	10/15/2012 5:58:10 PM
Arsenic	0.015	0.0025	*	mg/L	2.5	10/15/2012 5:58:10 PM
Lead	0.057	0.0025	*	mg/L	2.5	10/15/2012 5:58:10 PM
Selenium	0.0097	0.0025		mg/L	2.5	10/15/2012 5:58:10 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	10/12/2012 4:34:37 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Acenaphthylene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Aniline	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Anthracene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Azobenzene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Benz(a)anthracene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/5/2012 2:40:11 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-005 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-3 GW
Collection Date: 10/3/2012 9:30:00 AM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Benzo(k)fluoranthene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Benzoic acid	ND	20		µg/L	1	10/5/2012 2:40:11 PM
Benzyl alcohol	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/5/2012 2:40:11 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Carbazole	ND	10		µg/L	1	10/5/2012 2:40:11 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/5/2012 2:40:11 PM
4-Chloroaniline	ND	10		µg/L	1	10/5/2012 2:40:11 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
2-Chlorophenol	ND	10		µg/L	1	10/5/2012 2:40:11 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Chrysene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Di-n-octyl phthalate	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Dibenzofuran	ND	10		µg/L	1	10/5/2012 2:40:11 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Diethyl phthalate	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Dimethyl phthalate	ND	10		µg/L	1	10/5/2012 2:40:11 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/5/2012 2:40:11 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/5/2012 2:40:11 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/5/2012 2:40:11 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/5/2012 2:40:11 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Fluoranthene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Fluorene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Hexachlorobenzene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Hexachloroethane	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Isophorone	ND	10		µg/L	1	10/5/2012 2:40:11 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/5/2012 2:40:11 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-005 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-3 GW
Collection Date: 10/3/2012 9:30:00 AM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Methylphenol	ND	10		µg/L	1	10/5/2012 2:40:11 PM
3+4-Methylphenol	ND	10		µg/L	1	10/5/2012 2:40:11 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/5/2012 2:40:11 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/5/2012 2:40:11 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Naphthalene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
2-Nitroaniline	ND	10		µg/L	1	10/5/2012 2:40:11 PM
3-Nitroaniline	ND	10		µg/L	1	10/5/2012 2:40:11 PM
4-Nitroaniline	ND	20		µg/L	1	10/5/2012 2:40:11 PM
Nitrobenzene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
2-Nitrophenol	ND	10		µg/L	1	10/5/2012 2:40:11 PM
4-Nitrophenol	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Pentachlorophenol	ND	20		µg/L	1	10/5/2012 2:40:11 PM
Phenanthrene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Phenol	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Pyrene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Pyridine	ND	10		µg/L	1	10/5/2012 2:40:11 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/5/2012 2:40:11 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/5/2012 2:40:11 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/5/2012 2:40:11 PM
Surr: 2,4,6-Tribromophenol	74.9	44.2-126		%REC	1	10/5/2012 2:40:11 PM
Surr: 2-Fluorobiphenyl	83.3	37-114		%REC	1	10/5/2012 2:40:11 PM
Surr: 2-Fluorophenol	51.8	23.4-98		%REC	1	10/5/2012 2:40:11 PM
Surr: 4-Terphenyl-d14	81.8	41.3-116		%REC	1	10/5/2012 2:40:11 PM
Surr: Nitrobenzene-d5	77.3	39.5-118		%REC	1	10/5/2012 2:40:11 PM
Surr: Phenol-d5	49.8	20.9-95.9		%REC	1	10/5/2012 2:40:11 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	3.4	1.0		µg/L	1	10/5/2012 8:01:37 PM
Toluene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
Ethylbenzene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
Methyl tert-butyl ether (MTBE)	40	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
Naphthalene	ND	2.0		µg/L	1	10/5/2012 8:01:37 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/5/2012 8:01:37 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/5/2012 8:01:37 PM
Acetone	14	10		µg/L	1	10/5/2012 8:01:37 PM
Bromobenzene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-3 GW
Project: SWMU NO.1
Collection Date: 10/3/2012 9:30:00 AM
Lab ID: 1210332-005 **Matrix:** AQUEOUS **Received Date:** 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Bromoform	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
Bromomethane	ND	3.0		µg/L	1	10/5/2012 8:01:37 PM
2-Butanone	ND	10		µg/L	1	10/5/2012 8:01:37 PM
Carbon disulfide	ND	10		µg/L	1	10/5/2012 8:01:37 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
Chlorobenzene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
Chloroethane	ND	2.0		µg/L	1	10/5/2012 8:01:37 PM
Chloroform	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
Chloromethane	ND	3.0		µg/L	1	10/5/2012 8:01:37 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/5/2012 8:01:37 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
Dibromomethane	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/5/2012 8:01:37 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
2-Hexanone	ND	10		µg/L	1	10/5/2012 8:01:37 PM
Isopropylbenzene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/5/2012 8:01:37 PM
Methylene Chloride	ND	3.0		µg/L	1	10/5/2012 8:01:37 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/5/2012 8:01:37 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
Styrene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/5/2012 8:01:37 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-3 GW
Project: SWMU NO.1
Collection Date: 10/3/2012 9:30:00 AM
Lab ID: 1210332-005 **Matrix:** AQUEOUS **Received Date:** 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/5/2012 8:01:37 PM
Vinyl chloride	ND	1.0		µg/L	1	10/5/2012 8:01:37 PM
Xylenes, Total	ND	1.5		µg/L	1	10/5/2012 8:01:37 PM
Surr: 1,2-Dichloroethane-d4	88.1	70-130		%REC	1	10/5/2012 8:01:37 PM
Surr: 4-Bromofluorobenzene	82.1	70-130		%REC	1	10/5/2012 8:01:37 PM
Surr: Dibromofluoromethane	101	70-130		%REC	1	10/5/2012 8:01:37 PM
Surr: Toluene-d8	104	70-130		%REC	1	10/5/2012 8:01:37 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (8-10')
Collection Date: 10/3/2012 1:00:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/8/2012 9:05:40 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/8/2012 9:05:40 AM
Surr: DNOP	90.4	77.6-140		%REC	1	10/8/2012 9:05:40 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2012 6:55:17 AM
Surr: BFB	89.3	84-116		%REC	1	10/6/2012 6:55:17 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 11:13:42 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 10:21:28 AM
Arsenic	ND	12		mg/Kg	5	10/11/2012 10:21:28 AM
Barium	590	5.0		mg/Kg	50	10/11/2012 12:11:09 PM
Beryllium	ND	0.75		mg/Kg	5	10/11/2012 10:21:28 AM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 10:21:28 AM
Chromium	7.9	1.5		mg/Kg	5	10/11/2012 10:21:28 AM
Cobalt	4.0	1.5		mg/Kg	5	10/11/2012 10:21:28 AM
Iron	11000	500		mg/Kg	500	10/11/2012 12:13:37 PM
Lead	4.2	1.2		mg/Kg	5	10/11/2012 10:21:28 AM
Manganese	720	5.0		mg/Kg	50	10/11/2012 12:11:09 PM
Nickel	6.3	2.5		mg/Kg	5	10/11/2012 10:21:28 AM
Selenium	ND	12		mg/Kg	5	10/11/2012 10:21:28 AM
Silver	ND	1.2		mg/Kg	5	10/11/2012 10:21:28 AM
Vanadium	16	12		mg/Kg	5	10/11/2012 10:21:28 AM
Zinc	16	12		mg/Kg	5	10/11/2012 10:21:28 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Aniline	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Anthracene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Azobenzene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/9/2012 8:51:23 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (8-10')
Collection Date: 10/3/2012 1:00:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/9/2012 8:51:23 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Carbazole	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 8:51:23 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/9/2012 8:51:23 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/9/2012 8:51:23 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Chrysene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/9/2012 8:51:23 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/9/2012 8:51:23 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/9/2012 8:51:23 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 8:51:23 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/9/2012 8:51:23 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 8:51:23 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/9/2012 8:51:23 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 8:51:23 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 8:51:23 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Fluorene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Isophorone	ND	0.50		mg/Kg	1	10/9/2012 8:51:23 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/9/2012 8:51:23 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Naphthalene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM

Qualifiers:

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

Analytical Report
Lab Order **1210332**
Date Reported: **11/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (8-10')
Collection Date: 10/3/2012 1:00:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 8:51:23 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/9/2012 8:51:23 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/9/2012 8:51:23 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/9/2012 8:51:23 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Phenol	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Pyrene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Pyridine	ND	0.50		mg/Kg	1	10/9/2012 8:51:23 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 8:51:23 PM
Surr: 2,4,6-Tribromophenol	96.9	21.3-145		%REC	1	10/9/2012 8:51:23 PM
Surr: 2-Fluorobiphenyl	92.7	20-131		%REC	1	10/9/2012 8:51:23 PM
Surr: 2-Fluorophenol	84.5	11.9-130		%REC	1	10/9/2012 8:51:23 PM
Surr: 4-Terphenyl-d14	80.8	25.1-149		%REC	1	10/9/2012 8:51:23 PM
Surr: Nitrobenzene-d5	87.8	25.6-137		%REC	1	10/9/2012 8:51:23 PM
Surr: Phenol-d5	84.9	20.3-132		%REC	1	10/9/2012 8:51:23 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Toluene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Ethylbenzene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Xylenes, Total	ND	0.00181		mg/Kg	1	10/8/2012 10:58:13 PM
Methyl tert-butyl ether (MTBE)	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,2,4-Trimethylbenzene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,3,5-Trimethylbenzene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,2-Dichloroethane (EDC)	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,2-Dibromoethane (EDB)	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Naphthalene	ND	0.00181		mg/Kg	1	10/8/2012 10:58:13 PM
1-Methylnaphthalene	ND	0.00363		mg/Kg	1	10/8/2012 10:58:13 PM
2-Methylnaphthalene	ND	0.00363		mg/Kg	1	10/8/2012 10:58:13 PM
Acetone	0.0314	0.00907		mg/Kg	1	10/8/2012 10:58:13 PM
Bromobenzene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Bromodichloromethane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Bromoform	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Bromomethane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
2-Butanone	ND	0.00907		mg/Kg	1	10/8/2012 10:58:13 PM
Carbon tetrachloride	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Chlorobenzene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Chloroethane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-4 (8-10')
Project: SWMU NO.1
Collection Date: 10/3/2012 1:00:00 PM
Lab ID: 1210332-006 **Matrix:** SOIL **Received Date:** 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Chloromethane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
2-Chlorotoluene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Carbon disulfide	ND	0.00907		mg/Kg	1	10/8/2012 10:58:13 PM
4-Chlorotoluene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
cis-1,2-DCE	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
cis-1,3-Dichloropropene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,2-Dibromo-3-chloropropane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Dibromochloromethane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Dibromomethane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,2-Dichlorobenzene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,3-Dichlorobenzene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,4-Dichlorobenzene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Dichlorodifluoromethane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,1-Dichloroethane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,1-Dichloroethene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,2-Dichloropropane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,3-Dichloropropane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
2,2-Dichloropropane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,1-Dichloropropene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Hexachlorobutadiene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Isopropylbenzene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
4-Isopropyltoluene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Methylene chloride	ND	0.00272		mg/Kg	1	10/8/2012 10:58:13 PM
n-Butylbenzene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
2-Hexanone	ND	0.00907		mg/Kg	1	10/8/2012 10:58:13 PM
n-Propylbenzene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
sec-Butylbenzene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Styrene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
4-Methyl-2-pentanone	ND	0.00907		mg/Kg	1	10/8/2012 10:58:13 PM
tert-Butylbenzene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,1,1,2-Tetrachloroethane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,1,2,2-Tetrachloroethane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Tetrachloroethene (PCE)	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
trans-1,2-DCE	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
trans-1,3-Dichloropropene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,2,3-Trichlorobenzene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,2,4-Trichlorobenzene	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,1,1-Trichloroethane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
1,1,2-Trichloroethane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Trichloroethene (TCE)	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Trichlorofluoromethane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM

Qualifiers:

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

Analytical Report
Lab Order **1210332**
Date Reported: **11/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (8-10')
Collection Date: 10/3/2012 1:00:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Vinyl chloride	ND	0.000907		mg/Kg	1	10/8/2012 10:58:13 PM
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%REC	1	10/8/2012 10:58:13 PM
Surr: 4-Bromofluorobenzene	91.4	70-130		%REC	1	10/8/2012 10:58:13 PM
Surr: Dibromofluoromethane	93.1	70-130		%REC	1	10/8/2012 10:58:13 PM
Surr: Toluene-d8	102	70-130		%REC	1	10/8/2012 10:58:13 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (10-12')
Collection Date: 10/3/2012 1:15:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	16		mg/Kg	1	10/8/2012 9:56:53 AM
Motor Oil Range Organics (MRO)	ND	82		mg/Kg	1	10/8/2012 9:56:53 AM
Surr: DNOP	91.8	77.6-140		%REC	1	10/8/2012 9:56:53 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2012 7:25:26 AM
Surr: BFB	96.1	84-116		%REC	1	10/6/2012 7:25:26 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 11:15:28 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 10:26:23 AM
Arsenic	ND	12		mg/Kg	5	10/11/2012 10:26:23 AM
Barium	360	5.0		mg/Kg	50	10/11/2012 12:16:30 PM
Beryllium	ND	0.75		mg/Kg	5	10/11/2012 10:26:23 AM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 10:26:23 AM
Chromium	3.7	1.5		mg/Kg	5	10/11/2012 10:26:23 AM
Cobalt	2.0	1.5		mg/Kg	5	10/11/2012 10:26:23 AM
Iron	5300	500		mg/Kg	500	10/11/2012 12:18:56 PM
Lead	3.1	1.2		mg/Kg	5	10/11/2012 10:26:23 AM
Manganese	550	5.0		mg/Kg	50	10/11/2012 12:16:30 PM
Nickel	2.9	2.5		mg/Kg	5	10/11/2012 10:26:23 AM
Selenium	ND	12		mg/Kg	5	10/11/2012 10:26:23 AM
Silver	ND	1.2		mg/Kg	5	10/11/2012 10:26:23 AM
Vanadium	ND	12		mg/Kg	5	10/11/2012 10:26:23 AM
Zinc	ND	12		mg/Kg	5	10/11/2012 10:26:23 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Acenaphthylene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Aniline	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Anthracene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Azobenzene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Benzoic acid	ND	1.0		mg/Kg	1	10/9/2012 9:20:56 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (10-12')
Collection Date: 10/3/2012 1:15:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/9/2012 9:20:56 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Carbazole	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/9/2012 9:20:56 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/9/2012 9:20:56 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/9/2012 9:20:56 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Chrysene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/9/2012 9:20:56 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	10/9/2012 9:20:56 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Dibenzofuran	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/9/2012 9:20:56 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/9/2012 9:20:56 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/9/2012 9:20:56 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/9/2012 9:20:56 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/9/2012 9:20:56 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/9/2012 9:20:56 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/9/2012 9:20:56 PM
Fluoranthene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Fluorene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Hexachloroethane	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Isophorone	ND	1.0		mg/Kg	1	10/9/2012 9:20:56 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
2-Methylphenol	ND	1.0		mg/Kg	1	10/9/2012 9:20:56 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Naphthalene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (10-12')
Collection Date: 10/3/2012 1:15:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/9/2012 9:20:56 PM
Nitrobenzene	ND	1.0		mg/Kg	1	10/9/2012 9:20:56 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/9/2012 9:20:56 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/9/2012 9:20:56 PM
Phenanthrene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Phenol	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Pyrene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Pyridine	ND	1.0		mg/Kg	1	10/9/2012 9:20:56 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 9:20:56 PM
Surr: 2,4,6-Tribromophenol	97.4	21.3-145		%REC	1	10/9/2012 9:20:56 PM
Surr: 2-Fluorobiphenyl	90.6	20-131		%REC	1	10/9/2012 9:20:56 PM
Surr: 2-Fluorophenol	104	11.9-130		%REC	1	10/9/2012 9:20:56 PM
Surr: 4-Terphenyl-d14	79.0	25.1-149		%REC	1	10/9/2012 9:20:56 PM
Surr: Nitrobenzene-d5	92.0	25.6-137		%REC	1	10/9/2012 9:20:56 PM
Surr: Phenol-d5	95.8	20.3-132		%REC	1	10/9/2012 9:20:56 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Toluene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Ethylbenzene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Xylenes, Total	ND	0.00227		mg/Kg	1	10/8/2012 11:29:01 PM
Methyl tert-butyl ether (MTBE)	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,2,4-Trimethylbenzene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,3,5-Trimethylbenzene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,2-Dichloroethane (EDC)	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,2-Dibromoethane (EDB)	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Naphthalene	ND	0.00227		mg/Kg	1	10/8/2012 11:29:01 PM
1-Methylnaphthalene	ND	0.00453		mg/Kg	1	10/8/2012 11:29:01 PM
2-Methylnaphthalene	ND	0.00453		mg/Kg	1	10/8/2012 11:29:01 PM
Acetone	0.0153	0.0113		mg/Kg	1	10/8/2012 11:29:01 PM
Bromobenzene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Bromodichloromethane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Bromoform	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Bromomethane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
2-Butanone	ND	0.0113		mg/Kg	1	10/8/2012 11:29:01 PM
Carbon tetrachloride	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Chlorobenzene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Chloroethane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-4 (10-12')
Collection Date: 10/3/2012 1:15:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Chloromethane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
2-Chlorotoluene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Carbon disulfide	ND	0.0113		mg/Kg	1	10/8/2012 11:29:01 PM
4-Chlorotoluene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
cis-1,2-DCE	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
cis-1,3-Dichloropropene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,2-Dibromo-3-chloropropane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Dibromochloromethane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Dibromomethane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,2-Dichlorobenzene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,3-Dichlorobenzene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,4-Dichlorobenzene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Dichlorodifluoromethane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,1-Dichloroethane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,1-Dichloroethene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,2-Dichloropropane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,3-Dichloropropane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
2,2-Dichloropropane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,1-Dichloropropene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Hexachlorobutadiene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Isopropylbenzene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
4-Isopropyltoluene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Methylene chloride	ND	0.00340		mg/Kg	1	10/8/2012 11:29:01 PM
n-Butylbenzene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
2-Hexanone	ND	0.0113		mg/Kg	1	10/8/2012 11:29:01 PM
n-Propylbenzene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
sec-Butylbenzene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Styrene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
4-Methyl-2-pentanone	ND	0.0113		mg/Kg	1	10/8/2012 11:29:01 PM
tert-Butylbenzene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,1,1,2-Tetrachloroethane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,1,2,2-Tetrachloroethane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Tetrachloroethene (PCE)	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
trans-1,2-DCE	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
trans-1,3-Dichloropropene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,2,3-Trichlorobenzene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,2,4-Trichlorobenzene	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,1,1-Trichloroethane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
1,1,2-Trichloroethane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Trichloroethene (TCE)	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Trichlorofluoromethane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-4 (10-12')
Project: SWMU NO.1
Collection Date: 10/3/2012 1:15:00 PM
Lab ID: 1210332-007 **Matrix:** SOIL **Received Date:** 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Vinyl chloride	ND	0.00113		mg/Kg	1	10/8/2012 11:29:01 PM
Surr: 1,2-Dichloroethane-d4	95.2	70-130		%REC	1	10/8/2012 11:29:01 PM
Surr: 4-Bromofluorobenzene	87.2	70-130		%REC	1	10/8/2012 11:29:01 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	10/8/2012 11:29:01 PM
Surr: Toluene-d8	103	70-130		%REC	1	10/8/2012 11:29:01 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (26-27')
Collection Date: 10/3/2012 6:20:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	12		mg/Kg	1	10/6/2012 10:33:54 PM
Motor Oil Range Organics (MRO)	ND	59		mg/Kg	1	10/6/2012 10:33:54 PM
Surr: DNOP	88.2	77.6-140		%REC	1	10/6/2012 10:33:54 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/8/2012 6:56:09 PM
Surr: BFB	113	84-116		%REC	1	10/8/2012 6:56:09 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 11:17:13 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	2.5		mg/Kg	1	10/11/2012 10:28:52 AM
Arsenic	ND	2.5		mg/Kg	1	10/11/2012 10:28:52 AM
Barium	230	0.50		mg/Kg	5	10/11/2012 10:31:19 AM
Beryllium	0.30	0.15		mg/Kg	1	10/11/2012 10:28:52 AM
Cadmium	ND	0.10		mg/Kg	1	10/11/2012 10:28:52 AM
Chromium	5.1	0.30		mg/Kg	1	10/11/2012 10:28:52 AM
Cobalt	2.1	0.30		mg/Kg	1	10/11/2012 10:28:52 AM
Iron	5900	500		mg/Kg	500	10/11/2012 12:21:48 PM
Lead	0.57	0.25		mg/Kg	1	10/11/2012 10:28:52 AM
Manganese	200	0.50		mg/Kg	5	10/11/2012 10:31:19 AM
Nickel	3.5	0.50		mg/Kg	1	10/11/2012 10:28:52 AM
Selenium	ND	2.5		mg/Kg	1	10/11/2012 10:28:52 AM
Silver	ND	0.25		mg/Kg	1	10/11/2012 10:28:52 AM
Vanadium	8.6	2.5		mg/Kg	1	10/11/2012 10:28:52 AM
Zinc	8.5	2.5		mg/Kg	1	10/11/2012 10:28:52 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Acenaphthylene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Aniline	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Anthracene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Azobenzene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Benz(a)anthracene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Benzo(a)pyrene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Benzo(b)fluoranthene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Benzo(g,h,i)perylene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Benzo(k)fluoranthene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Benzoic acid	ND	0.99		mg/Kg	1	10/9/2012 9:50:28 PM
Benzyl alcohol	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Bis(2-chloroethoxy)methane	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Bis(2-chloroethyl)ether	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Bis(2-chloroisopropyl)ether	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (26-27')
Collection Date: 10/3/2012 6:20:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.99		mg/Kg	1	10/9/2012 9:50:28 PM
4-Bromophenyl phenyl ether	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Butyl benzyl phthalate	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Carbazole	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
4-Chloro-3-methylphenol	ND	0.99		mg/Kg	1	10/9/2012 9:50:28 PM
4-Chloroaniline	ND	0.99		mg/Kg	1	10/9/2012 9:50:28 PM
2-Chloronaphthalene	ND	0.49		mg/Kg	1	10/9/2012 9:50:28 PM
2-Chlorophenol	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
4-Chlorophenyl phenyl ether	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Chrysene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Di-n-butyl phthalate	ND	0.99		mg/Kg	1	10/9/2012 9:50:28 PM
Di-n-octyl phthalate	ND	0.49		mg/Kg	1	10/9/2012 9:50:28 PM
Dibenz(a,h)anthracene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Dibenzofuran	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
1,2-Dichlorobenzene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
1,3-Dichlorobenzene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
1,4-Dichlorobenzene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
3,3'-Dichlorobenzidine	ND	0.49		mg/Kg	1	10/9/2012 9:50:28 PM
Diethyl phthalate	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Dimethyl phthalate	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
2,4-Dichlorophenol	ND	0.79		mg/Kg	1	10/9/2012 9:50:28 PM
2,4-Dimethylphenol	ND	0.59		mg/Kg	1	10/9/2012 9:50:28 PM
4,6-Dinitro-2-methylphenol	ND	0.99		mg/Kg	1	10/9/2012 9:50:28 PM
2,4-Dinitrophenol	ND	0.79		mg/Kg	1	10/9/2012 9:50:28 PM
2,4-Dinitrotoluene	ND	0.99		mg/Kg	1	10/9/2012 9:50:28 PM
2,6-Dinitrotoluene	ND	0.99		mg/Kg	1	10/9/2012 9:50:28 PM
Fluoranthene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Fluorene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Hexachlorobenzene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Hexachlorobutadiene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Hexachlorocyclopentadiene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Hexachloroethane	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Indeno(1,2,3-cd)pyrene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Isophorone	ND	0.99		mg/Kg	1	10/9/2012 9:50:28 PM
1-Methylnaphthalene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
2-Methylnaphthalene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
2-Methylphenol	ND	0.99		mg/Kg	1	10/9/2012 9:50:28 PM
3+4-Methylphenol	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
N-Nitrosodi-n-propylamine	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
N-Nitrosodiphenylamine	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Naphthalene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
2-Nitroaniline	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (26-27')
Collection Date: 10/3/2012 6:20:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
4-Nitroaniline	ND	0.79		mg/Kg	1	10/9/2012 9:50:28 PM
Nitrobenzene	ND	0.99		mg/Kg	1	10/9/2012 9:50:28 PM
2-Nitrophenol	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
4-Nitrophenol	ND	0.49		mg/Kg	1	10/9/2012 9:50:28 PM
Pentachlorophenol	ND	0.79		mg/Kg	1	10/9/2012 9:50:28 PM
Phenanthrene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Phenol	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Pyrene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Pyridine	ND	0.99		mg/Kg	1	10/9/2012 9:50:28 PM
1,2,4-Trichlorobenzene	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
2,4,5-Trichlorophenol	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
2,4,6-Trichlorophenol	ND	0.39		mg/Kg	1	10/9/2012 9:50:28 PM
Surr: 2,4,6-Tribromophenol	70.4	21.3-145		%REC	1	10/9/2012 9:50:28 PM
Surr: 2-Fluorobiphenyl	65.2	20-131		%REC	1	10/9/2012 9:50:28 PM
Surr: 2-Fluorophenol	65.4	11.9-130		%REC	1	10/9/2012 9:50:28 PM
Surr: 4-Terphenyl-d14	61.6	25.1-149		%REC	1	10/9/2012 9:50:28 PM
Surr: Nitrobenzene-d5	64.1	25.6-137		%REC	1	10/9/2012 9:50:28 PM
Surr: Phenol-d5	66.6	20.3-132		%REC	1	10/9/2012 9:50:28 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00594	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Toluene	0.00831	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Ethylbenzene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Xylenes, Total	ND	0.00202		mg/Kg	1	10/8/2012 11:59:48 PM
Methyl tert-butyl ether (MTBE)	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,2,4-Trimethylbenzene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,3,5-Trimethylbenzene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,2-Dichloroethane (EDC)	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,2-Dibromoethane (EDB)	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Naphthalene	ND	0.00202		mg/Kg	1	10/8/2012 11:59:48 PM
1-Methylnaphthalene	ND	0.00404		mg/Kg	1	10/8/2012 11:59:48 PM
2-Methylnaphthalene	ND	0.00404		mg/Kg	1	10/8/2012 11:59:48 PM
Acetone	0.0233	0.0101		mg/Kg	1	10/8/2012 11:59:48 PM
Bromobenzene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Bromodichloromethane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Bromoform	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Bromomethane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
2-Butanone	ND	0.0101		mg/Kg	1	10/8/2012 11:59:48 PM
Carbon tetrachloride	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Chlorobenzene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Chloroethane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (26-27')
Collection Date: 10/3/2012 6:20:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Chloromethane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
2-Chlorotoluene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Carbon disulfide	ND	0.0101		mg/Kg	1	10/8/2012 11:59:48 PM
4-Chlorotoluene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
cis-1,2-DCE	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
cis-1,3-Dichloropropene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,2-Dibromo-3-chloropropane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Dibromochloromethane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Dibromomethane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,2-Dichlorobenzene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,3-Dichlorobenzene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,4-Dichlorobenzene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Dichlorodifluoromethane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,1-Dichloroethane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,1-Dichloroethene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,2-Dichloropropane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,3-Dichloropropane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
2,2-Dichloropropane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,1-Dichloropropene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Hexachlorobutadiene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Isopropylbenzene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
4-Isopropyltoluene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Methylene chloride	ND	0.00303		mg/Kg	1	10/8/2012 11:59:48 PM
n-Butylbenzene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
2-Hexanone	ND	0.0101		mg/Kg	1	10/8/2012 11:59:48 PM
n-Propylbenzene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
sec-Butylbenzene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Styrene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
4-Methyl-2-pentanone	ND	0.0101		mg/Kg	1	10/8/2012 11:59:48 PM
tert-Butylbenzene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,1,1,2-Tetrachloroethane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,1,2,2-Tetrachloroethane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Tetrachloroethene (PCE)	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
trans-1,2-DCE	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
trans-1,3-Dichloropropene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,2,3-Trichlorobenzene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,2,4-Trichlorobenzene	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,1,1-Trichloroethane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
1,1,2-Trichloroethane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Trichloroethene (TCE)	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Trichlorofluoromethane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM

Qualifiers:

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

Analytical Report
Lab Order **1210332**
Date Reported: **11/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (26-27')
Collection Date: 10/3/2012 6:20:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Vinyl chloride	ND	0.00101		mg/Kg	1	10/8/2012 11:59:48 PM
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	1	10/8/2012 11:59:48 PM
Surr: 4-Bromofluorobenzene	87.5	70-130		%REC	1	10/8/2012 11:59:48 PM
Surr: Dibromofluoromethane	100	70-130		%REC	1	10/8/2012 11:59:48 PM
Surr: Toluene-d8	95.7	70-130		%REC	1	10/8/2012 11:59:48 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-009 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (27-28')
Collection Date: 10/3/2012 6:30:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/6/2012 10:58:59 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/6/2012 10:58:59 PM
Surr: DNOP	89.3	77.6-140		%REC	1	10/6/2012 10:58:59 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2012 7:40:09 PM
Surr: BFB	98.1	84-116		%REC	1	10/6/2012 7:40:09 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 11:19:00 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 2:31:31 PM
Arsenic	ND	12		mg/Kg	5	10/11/2012 2:31:31 PM
Barium	380	5.0		mg/Kg	50	10/11/2012 12:24:38 PM
Beryllium	1.1	0.75		mg/Kg	5	10/11/2012 10:45:59 AM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 10:45:59 AM
Chromium	15	1.5		mg/Kg	5	10/11/2012 10:45:59 AM
Cobalt	7.8	1.5		mg/Kg	5	10/11/2012 10:45:59 AM
Iron	17000	500		mg/Kg	500	10/11/2012 12:27:03 PM
Lead	ND	1.2		mg/Kg	5	10/11/2012 10:45:59 AM
Manganese	640	5.0		mg/Kg	50	10/11/2012 12:24:38 PM
Nickel	12	2.5		mg/Kg	5	10/11/2012 10:45:59 AM
Selenium	ND	12		mg/Kg	5	10/11/2012 10:45:59 AM
Silver	ND	1.2		mg/Kg	5	10/11/2012 10:45:59 AM
Vanadium	22	12		mg/Kg	5	10/11/2012 10:45:59 AM
Zinc	31	12		mg/Kg	5	10/11/2012 10:45:59 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Aniline	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Anthracene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Azobenzene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/9/2012 10:19:57 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-009 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (27-28')
Collection Date: 10/3/2012 6:30:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/9/2012 10:19:57 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Carbazole	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 10:19:57 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/9/2012 10:19:57 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/9/2012 10:19:57 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Chrysene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/9/2012 10:19:57 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/9/2012 10:19:57 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/9/2012 10:19:57 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 10:19:57 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/9/2012 10:19:57 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 10:19:57 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/9/2012 10:19:57 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 10:19:57 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 10:19:57 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Fluorene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Isophorone	ND	0.50		mg/Kg	1	10/9/2012 10:19:57 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/9/2012 10:19:57 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Naphthalene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-5 (27-28')
Project: SWMU NO.1
Collection Date: 10/3/2012 6:30:00 PM
Lab ID: 1210332-009 **Matrix:** SOIL **Received Date:** 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 10:19:57 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/9/2012 10:19:57 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/9/2012 10:19:57 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/9/2012 10:19:57 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Phenol	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Pyrene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Pyridine	ND	0.50		mg/Kg	1	10/9/2012 10:19:57 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 10:19:57 PM
Surr: 2,4,6-Tribromophenol	84.9	21.3-145		%REC	1	10/9/2012 10:19:57 PM
Surr: 2-Fluorobiphenyl	77.2	20-131		%REC	1	10/9/2012 10:19:57 PM
Surr: 2-Fluorophenol	79.7	11.9-130		%REC	1	10/9/2012 10:19:57 PM
Surr: 4-Terphenyl-d14	76.5	25.1-149		%REC	1	10/9/2012 10:19:57 PM
Surr: Nitrobenzene-d5	87.1	25.6-137		%REC	1	10/9/2012 10:19:57 PM
Surr: Phenol-d5	79.7	20.3-132		%REC	1	10/9/2012 10:19:57 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00158	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Toluene	0.00101	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Ethylbenzene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Xylenes, Total	ND	0.00199		mg/Kg	1	10/9/2012 12:30:33 AM
Methyl tert-butyl ether (MTBE)	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,2,4-Trimethylbenzene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,3,5-Trimethylbenzene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,2-Dichloroethane (EDC)	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,2-Dibromoethane (EDB)	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Naphthalene	ND	0.00199		mg/Kg	1	10/9/2012 12:30:33 AM
1-Methylnaphthalene	ND	0.00398		mg/Kg	1	10/9/2012 12:30:33 AM
2-Methylnaphthalene	ND	0.00398		mg/Kg	1	10/9/2012 12:30:33 AM
Acetone	ND	0.00995		mg/Kg	1	10/9/2012 12:30:33 AM
Bromobenzene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Bromodichloromethane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Bromoform	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Bromomethane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
2-Butanone	ND	0.00995		mg/Kg	1	10/9/2012 12:30:33 AM
Carbon tetrachloride	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Chlorobenzene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Chloroethane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-009 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (27-28')
Collection Date: 10/3/2012 6:30:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Chloromethane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
2-Chlorotoluene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Carbon disulfide	ND	0.00995		mg/Kg	1	10/9/2012 12:30:33 AM
4-Chlorotoluene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
cis-1,2-DCE	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
cis-1,3-Dichloropropene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,2-Dibromo-3-chloropropane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Dibromochloromethane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Dibromomethane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,2-Dichlorobenzene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,3-Dichlorobenzene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,4-Dichlorobenzene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Dichlorodifluoromethane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,1-Dichloroethane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,1-Dichloroethene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,2-Dichloropropane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,3-Dichloropropane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
2,2-Dichloropropane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,1-Dichloropropene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Hexachlorobutadiene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Isopropylbenzene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
4-Isopropyltoluene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Methylene chloride	ND	0.00299		mg/Kg	1	10/9/2012 12:30:33 AM
n-Butylbenzene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
2-Hexanone	ND	0.00995		mg/Kg	1	10/9/2012 12:30:33 AM
n-Propylbenzene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
sec-Butylbenzene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Styrene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
4-Methyl-2-pentanone	ND	0.00995		mg/Kg	1	10/9/2012 12:30:33 AM
tert-Butylbenzene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,1,1,2-Tetrachloroethane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,1,2,2-Tetrachloroethane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Tetrachloroethene (PCE)	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
trans-1,2-DCE	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
trans-1,3-Dichloropropene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,2,3-Trichlorobenzene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,2,4-Trichlorobenzene	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,1,1-Trichloroethane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
1,1,2-Trichloroethane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Trichloroethene (TCE)	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Trichlorofluoromethane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-5 (27-28')
Project: SWMU NO.1
Collection Date: 10/3/2012 6:30:00 PM
Lab ID: 1210332-009 **Matrix:** SOIL **Received Date:** 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Vinyl chloride	ND	0.000995		mg/Kg	1	10/9/2012 12:30:33 AM
Surr: 1,2-Dichloroethane-d4	98.7	70-130		%REC	1	10/9/2012 12:30:33 AM
Surr: 4-Bromofluorobenzene	97.4	70-130		%REC	1	10/9/2012 12:30:33 AM
Surr: Dibromofluoromethane	104	70-130		%REC	1	10/9/2012 12:30:33 AM
Surr: Toluene-d8	97.1	70-130		%REC	1	10/9/2012 12:30:33 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1210332**
Date Reported: **11/14/2012**

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-010 **Matrix:** AQUEOUS

Client Sample ID: EB100312
Collection Date: 10/3/2012 6:44:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/8/2012 1:14:39 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/8/2012 1:14:39 PM
Surr: DNOP	118	79.5-166		%REC	1	10/8/2012 1:14:39 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/5/2012 11:51:04 PM
Surr: BFB	113	69.8-119		%REC	1	10/5/2012 11:51:04 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	ND	0.10		mg/L	1	10/5/2012 9:12:18 PM
Chloride	ND	0.50		mg/L	1	10/5/2012 9:12:18 PM
Sulfate	ND	0.50		mg/L	1	10/5/2012 9:12:18 PM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	ND	0.0020		mg/L	1	10/10/2012 8:08:55 PM
Beryllium	ND	0.0020		mg/L	1	10/10/2012 8:08:55 PM
Cadmium	ND	0.0020		mg/L	1	10/10/2012 8:08:55 PM
Chromium	ND	0.0060		mg/L	1	10/12/2012 7:42:29 AM
Cobalt	ND	0.0060		mg/L	1	10/10/2012 8:08:55 PM
Iron	0.025	0.020		mg/L	1	10/10/2012 8:08:55 PM
Manganese	ND	0.0020		mg/L	1	10/10/2012 8:08:55 PM
Nickel	ND	0.010		mg/L	1	10/10/2012 8:08:55 PM
Silver	ND	0.0050		mg/L	1	10/10/2012 8:08:55 PM
Vanadium	ND	0.050		mg/L	1	10/10/2012 8:08:55 PM
Zinc	ND	0.010		mg/L	1	10/12/2012 7:42:29 AM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0010		mg/L	1	10/17/2012 11:13:21 AM
Arsenic	ND	0.0010		mg/L	1	10/17/2012 11:13:21 AM
Lead	ND	0.0010		mg/L	1	10/17/2012 11:13:21 AM
Selenium	ND	0.0010		mg/L	1	10/17/2012 11:13:21 AM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	10/12/2012 4:36:48 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Acenaphthylene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Aniline	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Anthracene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Azobenzene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Benz(a)anthracene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/5/2012 3:09:51 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB100312
Project: SWMU NO.1
Collection Date: 10/3/2012 6:44:00 PM
Lab ID: 1210332-010 **Matrix:** AQUEOUS **Received Date:** 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Benzo(k)fluoranthene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Benzoic acid	ND	20		µg/L	1	10/5/2012 3:09:51 PM
Benzyl alcohol	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/5/2012 3:09:51 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Carbazole	ND	10		µg/L	1	10/5/2012 3:09:51 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/5/2012 3:09:51 PM
4-Chloroaniline	ND	10		µg/L	1	10/5/2012 3:09:51 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
2-Chlorophenol	ND	10		µg/L	1	10/5/2012 3:09:51 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Chrysene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Di-n-octyl phthalate	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Dibenzofuran	ND	10		µg/L	1	10/5/2012 3:09:51 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Diethyl phthalate	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Dimethyl phthalate	ND	10		µg/L	1	10/5/2012 3:09:51 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/5/2012 3:09:51 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/5/2012 3:09:51 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/5/2012 3:09:51 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/5/2012 3:09:51 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Fluoranthene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Fluorene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Hexachlorobenzene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Hexachloroethane	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Isophorone	ND	10		µg/L	1	10/5/2012 3:09:51 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/5/2012 3:09:51 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-010 **Matrix:** AQUEOUS

Client Sample ID: EB100312
Collection Date: 10/3/2012 6:44:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Methylphenol	ND	10		µg/L	1	10/5/2012 3:09:51 PM
3+4-Methylphenol	ND	10		µg/L	1	10/5/2012 3:09:51 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/5/2012 3:09:51 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/5/2012 3:09:51 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Naphthalene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
2-Nitroaniline	ND	10		µg/L	1	10/5/2012 3:09:51 PM
3-Nitroaniline	ND	10		µg/L	1	10/5/2012 3:09:51 PM
4-Nitroaniline	ND	20		µg/L	1	10/5/2012 3:09:51 PM
Nitrobenzene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
2-Nitrophenol	ND	10		µg/L	1	10/5/2012 3:09:51 PM
4-Nitrophenol	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Pentachlorophenol	ND	20		µg/L	1	10/5/2012 3:09:51 PM
Phenanthrene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Phenol	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Pyrene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Pyridine	ND	10		µg/L	1	10/5/2012 3:09:51 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/5/2012 3:09:51 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/5/2012 3:09:51 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/5/2012 3:09:51 PM
Surr: 2,4,6-Tribromophenol	92.9	44.2-126		%REC	1	10/5/2012 3:09:51 PM
Surr: 2-Fluorobiphenyl	89.6	37-114		%REC	1	10/5/2012 3:09:51 PM
Surr: 2-Fluorophenol	69.2	23.4-98		%REC	1	10/5/2012 3:09:51 PM
Surr: 4-Terphenyl-d14	83.7	41.3-116		%REC	1	10/5/2012 3:09:51 PM
Surr: Nitrobenzene-d5	91.5	39.5-118		%REC	1	10/5/2012 3:09:51 PM
Surr: Phenol-d5	51.7	20.9-95.9		%REC	1	10/5/2012 3:09:51 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
Toluene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
Ethylbenzene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
Naphthalene	ND	2.0		µg/L	1	10/5/2012 8:29:24 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/5/2012 8:29:24 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/5/2012 8:29:24 PM
Acetone	ND	10		µg/L	1	10/5/2012 8:29:24 PM
Bromobenzene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-010 **Matrix:** AQUEOUS

Client Sample ID: EB100312
Collection Date: 10/3/2012 6:44:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Bromoform	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
Bromomethane	ND	3.0		µg/L	1	10/5/2012 8:29:24 PM
2-Butanone	ND	10		µg/L	1	10/5/2012 8:29:24 PM
Carbon disulfide	ND	10		µg/L	1	10/5/2012 8:29:24 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
Chlorobenzene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
Chloroethane	ND	2.0		µg/L	1	10/5/2012 8:29:24 PM
Chloroform	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
Chloromethane	ND	3.0		µg/L	1	10/5/2012 8:29:24 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/5/2012 8:29:24 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
Dibromomethane	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/5/2012 8:29:24 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
2-Hexanone	ND	10		µg/L	1	10/5/2012 8:29:24 PM
Isopropylbenzene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/5/2012 8:29:24 PM
Methylene Chloride	ND	3.0		µg/L	1	10/5/2012 8:29:24 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/5/2012 8:29:24 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
Styrene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/5/2012 8:29:24 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB100312
Project: SWMU NO.1
Collection Date: 10/3/2012 6:44:00 PM
Lab ID: 1210332-010 **Matrix:** AQUEOUS **Received Date:** 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/5/2012 8:29:24 PM
Vinyl chloride	ND	1.0		µg/L	1	10/5/2012 8:29:24 PM
Xylenes, Total	ND	1.5		µg/L	1	10/5/2012 8:29:24 PM
Surr: 1,2-Dichloroethane-d4	82.3	70-130		%REC	1	10/5/2012 8:29:24 PM
Surr: 4-Bromofluorobenzene	80.0	70-130		%REC	1	10/5/2012 8:29:24 PM
Surr: Dibromofluoromethane	89.2	70-130		%REC	1	10/5/2012 8:29:24 PM
Surr: Toluene-d8	80.0	70-130		%REC	1	10/5/2012 8:29:24 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MeOH Blank 100312
Project: SWMU NO.1
Collection Date:
Lab ID: 1210332-011
Matrix: MEOH BLAN
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2012 8:10:15 PM
Surr: BFB	77.0	84-116	S	%REC	1	10/6/2012 8:10:15 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
Toluene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
Naphthalene	ND	0.10		mg/Kg	1	10/15/2012 8:46:00 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/15/2012 8:46:00 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/15/2012 8:46:00 PM
Acetone	ND	0.75		mg/Kg	1	10/15/2012 8:46:00 PM
Bromobenzene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
Bromoform	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
Bromomethane	ND	0.15		mg/Kg	1	10/15/2012 8:46:00 PM
2-Butanone	ND	0.50		mg/Kg	1	10/15/2012 8:46:00 PM
Carbon disulfide	ND	0.50		mg/Kg	1	10/15/2012 8:46:00 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	10/15/2012 8:46:00 PM
Chlorobenzene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
Chloroethane	ND	0.10		mg/Kg	1	10/15/2012 8:46:00 PM
Chloroform	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
Chloromethane	ND	0.15		mg/Kg	1	10/15/2012 8:46:00 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	10/15/2012 8:46:00 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
Dibromomethane	ND	0.10		mg/Kg	1	10/15/2012 8:46:00 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	10/15/2012 8:46:00 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MeOH Blank 100312
Project: SWMU NO.1
Collection Date:
Lab ID: 1210332-011
Matrix: MEOH BLAN
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
2,2-Dichloropropane	ND	0.10		mg/Kg	1	10/15/2012 8:46:00 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	10/15/2012 8:46:00 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	10/15/2012 8:46:00 PM
2-Hexanone	ND	0.50		mg/Kg	1	10/15/2012 8:46:00 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	10/15/2012 8:46:00 PM
Methylene chloride	ND	0.15		mg/Kg	1	10/15/2012 8:46:00 PM
n-Butylbenzene	ND	0.15		mg/Kg	1	10/15/2012 8:46:00 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
Styrene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	10/15/2012 8:46:00 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	10/15/2012 8:46:00 PM
Vinyl chloride	ND	0.050		mg/Kg	1	10/15/2012 8:46:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	10/15/2012 8:46:00 PM
Surr: 1,2-Dichloroethane-d4	93.6	70-130		%REC	1	10/15/2012 8:46:00 PM
Surr: 4-Bromofluorobenzene	92.2	70-130		%REC	1	10/15/2012 8:46:00 PM
Surr: Dibromofluoromethane	94.4	70-130		%REC	1	10/15/2012 8:46:00 PM
Surr: Toluene-d8	99.2	70-130		%REC	1	10/15/2012 8:46:00 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-012 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (10-12')
Collection Date: 10/3/2012 5:30:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/8/2012 10:22:00 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/8/2012 10:22:00 AM
Surr: DNOP	99.0	77.6-140		%REC	1	10/8/2012 10:22:00 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2012 8:40:29 PM
Surr: BFB	103	84-116		%REC	1	10/6/2012 8:40:29 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 11:38:40 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 11:00:15 AM
Arsenic	ND	12		mg/Kg	5	10/11/2012 11:00:15 AM
Barium	610	5.0		mg/Kg	50	10/11/2012 12:31:20 PM
Beryllium	ND	0.75		mg/Kg	5	10/11/2012 11:00:15 AM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 11:00:15 AM
Chromium	11	1.5		mg/Kg	5	10/11/2012 11:00:15 AM
Cobalt	3.3	1.5		mg/Kg	5	10/11/2012 11:00:15 AM
Iron	9200	500		mg/Kg	500	10/11/2012 12:44:37 PM
Lead	3.9	1.2		mg/Kg	5	10/11/2012 11:00:15 AM
Manganese	1300	5.0		mg/Kg	50	10/11/2012 12:31:20 PM
Nickel	4.5	2.5		mg/Kg	5	10/11/2012 11:00:15 AM
Selenium	ND	12		mg/Kg	5	10/11/2012 11:00:15 AM
Silver	ND	1.2		mg/Kg	5	10/11/2012 11:00:15 AM
Vanadium	15	12		mg/Kg	5	10/11/2012 11:00:15 AM
Zinc	ND	12		mg/Kg	5	10/11/2012 11:00:15 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Aniline	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Anthracene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Azobenzene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/9/2012 10:49:25 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM

Qualifiers:

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

Analytical Report
Lab Order **1210332**
Date Reported: **11/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-012 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (10-12')
Collection Date: 10/3/2012 5:30:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/9/2012 10:49:25 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Carbazole	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 10:49:25 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/9/2012 10:49:25 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/9/2012 10:49:25 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Chrysene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/9/2012 10:49:25 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/9/2012 10:49:25 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/9/2012 10:49:25 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 10:49:25 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/9/2012 10:49:25 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 10:49:25 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/9/2012 10:49:25 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 10:49:25 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 10:49:25 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Fluorene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Isophorone	ND	0.50		mg/Kg	1	10/9/2012 10:49:25 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/9/2012 10:49:25 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Naphthalene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-012 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (10-12')
Collection Date: 10/3/2012 5:30:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 10:49:25 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/9/2012 10:49:25 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/9/2012 10:49:25 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/9/2012 10:49:25 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Phenol	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Pyrene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Pyridine	ND	0.50		mg/Kg	1	10/9/2012 10:49:25 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 10:49:25 PM
Surr: 2,4,6-Tribromophenol	96.0	21.3-145		%REC	1	10/9/2012 10:49:25 PM
Surr: 2-Fluorobiphenyl	82.9	20-131		%REC	1	10/9/2012 10:49:25 PM
Surr: 2-Fluorophenol	82.0	11.9-130		%REC	1	10/9/2012 10:49:25 PM
Surr: 4-Terphenyl-d14	76.7	25.1-149		%REC	1	10/9/2012 10:49:25 PM
Surr: Nitrobenzene-d5	80.1	25.6-137		%REC	1	10/9/2012 10:49:25 PM
Surr: Phenol-d5	80.7	20.3-132		%REC	1	10/9/2012 10:49:25 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Toluene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Ethylbenzene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Xylenes, Total	ND	0.00182		mg/Kg	1	10/9/2012 1:01:16 AM
Methyl tert-butyl ether (MTBE)	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,2,4-Trimethylbenzene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,3,5-Trimethylbenzene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,2-Dichloroethane (EDC)	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,2-Dibromoethane (EDB)	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Naphthalene	ND	0.00182		mg/Kg	1	10/9/2012 1:01:16 AM
1-Methylnaphthalene	ND	0.00363		mg/Kg	1	10/9/2012 1:01:16 AM
2-Methylnaphthalene	ND	0.00363		mg/Kg	1	10/9/2012 1:01:16 AM
Acetone	0.0614	0.00909		mg/Kg	1	10/9/2012 1:01:16 AM
Bromobenzene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Bromodichloromethane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Bromoform	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Bromomethane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
2-Butanone	0.0142	0.00909		mg/Kg	1	10/9/2012 1:01:16 AM
Carbon tetrachloride	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Chlorobenzene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Chloroethane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-012 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (10-12')
Collection Date: 10/3/2012 5:30:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Chloromethane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
2-Chlorotoluene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Carbon disulfide	ND	0.00909		mg/Kg	1	10/9/2012 1:01:16 AM
4-Chlorotoluene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
cis-1,2-DCE	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
cis-1,3-Dichloropropene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,2-Dibromo-3-chloropropane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Dibromochloromethane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Dibromomethane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,2-Dichlorobenzene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,3-Dichlorobenzene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,4-Dichlorobenzene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Dichlorodifluoromethane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,1-Dichloroethane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,1-Dichloroethene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,2-Dichloropropane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,3-Dichloropropane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
2,2-Dichloropropane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,1-Dichloropropene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Hexachlorobutadiene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Isopropylbenzene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
4-Isopropyltoluene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Methylene chloride	ND	0.00273		mg/Kg	1	10/9/2012 1:01:16 AM
n-Butylbenzene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
2-Hexanone	ND	0.00909		mg/Kg	1	10/9/2012 1:01:16 AM
n-Propylbenzene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
sec-Butylbenzene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Styrene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
4-Methyl-2-pentanone	ND	0.00909		mg/Kg	1	10/9/2012 1:01:16 AM
tert-Butylbenzene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,1,1,2-Tetrachloroethane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,1,2,2-Tetrachloroethane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Tetrachloroethene (PCE)	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
trans-1,2-DCE	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
trans-1,3-Dichloropropene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,2,3-Trichlorobenzene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,2,4-Trichlorobenzene	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,1,1-Trichloroethane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
1,1,2-Trichloroethane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Trichloroethene (TCE)	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Trichlorofluoromethane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-012 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (10-12')
Collection Date: 10/3/2012 5:30:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Vinyl chloride	ND	0.000909		mg/Kg	1	10/9/2012 1:01:16 AM
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	10/9/2012 1:01:16 AM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	10/9/2012 1:01:16 AM
Surr: Dibromofluoromethane	105	70-130		%REC	1	10/9/2012 1:01:16 AM
Surr: Toluene-d8	106	70-130		%REC	1	10/9/2012 1:01:16 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-013 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (14-16')
Collection Date: 10/3/2012 5:45:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/6/2012 11:24:06 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/6/2012 11:24:06 PM
Surr: DNOP	99.0	77.6-140		%REC	1	10/6/2012 11:24:06 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/6/2012 9:40:48 PM
Surr: BFB	95.0	84-116		%REC	1	10/6/2012 9:40:48 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 11:40:27 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 11:05:28 AM
Arsenic	ND	12		mg/Kg	5	10/11/2012 11:05:28 AM
Barium	640	5.0		mg/Kg	50	10/11/2012 12:47:28 PM
Beryllium	ND	0.75		mg/Kg	5	10/11/2012 11:05:28 AM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 11:05:28 AM
Chromium	11	1.5		mg/Kg	5	10/11/2012 11:05:28 AM
Cobalt	3.9	1.5		mg/Kg	5	10/11/2012 11:05:28 AM
Iron	11000	500		mg/Kg	500	10/11/2012 12:49:54 PM
Lead	4.4	1.2		mg/Kg	5	10/11/2012 11:05:28 AM
Manganese	1200	5.0		mg/Kg	50	10/11/2012 12:47:28 PM
Nickel	5.9	2.5		mg/Kg	5	10/11/2012 11:05:28 AM
Selenium	ND	12		mg/Kg	5	10/11/2012 11:05:28 AM
Silver	ND	1.2		mg/Kg	5	10/11/2012 11:05:28 AM
Vanadium	19	12		mg/Kg	5	10/11/2012 11:05:28 AM
Zinc	14	12		mg/Kg	5	10/11/2012 11:05:28 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Aniline	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Anthracene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Azobenzene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/9/2012 11:18:52 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-013 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (14-16')
Collection Date: 10/3/2012 5:45:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/9/2012 11:18:52 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Carbazole	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 11:18:52 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/9/2012 11:18:52 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/9/2012 11:18:52 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Chrysene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/9/2012 11:18:52 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/9/2012 11:18:52 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/9/2012 11:18:52 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/9/2012 11:18:52 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/9/2012 11:18:52 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/9/2012 11:18:52 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/9/2012 11:18:52 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 11:18:52 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/9/2012 11:18:52 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Fluorene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Isophorone	ND	0.50		mg/Kg	1	10/9/2012 11:18:52 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/9/2012 11:18:52 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Naphthalene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-013 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (14-16')
Collection Date: 10/3/2012 5:45:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/9/2012 11:18:52 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/9/2012 11:18:52 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/9/2012 11:18:52 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/9/2012 11:18:52 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Phenol	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Pyrene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Pyridine	ND	0.50		mg/Kg	1	10/9/2012 11:18:52 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/9/2012 11:18:52 PM
Surr: 2,4,6-Tribromophenol	99.8	21.3-145		%REC	1	10/9/2012 11:18:52 PM
Surr: 2-Fluorobiphenyl	87.7	20-131		%REC	1	10/9/2012 11:18:52 PM
Surr: 2-Fluorophenol	94.2	11.9-130		%REC	1	10/9/2012 11:18:52 PM
Surr: 4-Terphenyl-d14	78.0	25.1-149		%REC	1	10/9/2012 11:18:52 PM
Surr: Nitrobenzene-d5	91.1	25.6-137		%REC	1	10/9/2012 11:18:52 PM
Surr: Phenol-d5	93.7	20.3-132		%REC	1	10/9/2012 11:18:52 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Toluene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Ethylbenzene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Xylenes, Total	ND	0.00189		mg/Kg	1	10/9/2012 1:32:00 AM
Methyl tert-butyl ether (MTBE)	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,2,4-Trimethylbenzene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,3,5-Trimethylbenzene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,2-Dichloroethane (EDC)	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,2-Dibromoethane (EDB)	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Naphthalene	ND	0.00189		mg/Kg	1	10/9/2012 1:32:00 AM
1-Methylnaphthalene	ND	0.00379		mg/Kg	1	10/9/2012 1:32:00 AM
2-Methylnaphthalene	ND	0.00379		mg/Kg	1	10/9/2012 1:32:00 AM
Acetone	0.0891	0.00947		mg/Kg	1	10/9/2012 1:32:00 AM
Bromobenzene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Bromodichloromethane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Bromoform	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Bromomethane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
2-Butanone	0.0179	0.00947		mg/Kg	1	10/9/2012 1:32:00 AM
Carbon tetrachloride	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Chlorobenzene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Chloroethane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-013 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (14-16')
Collection Date: 10/3/2012 5:45:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Chloromethane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
2-Chlorotoluene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Carbon disulfide	ND	0.00947		mg/Kg	1	10/9/2012 1:32:00 AM
4-Chlorotoluene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
cis-1,2-DCE	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
cis-1,3-Dichloropropene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,2-Dibromo-3-chloropropane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Dibromochloromethane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Dibromomethane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,2-Dichlorobenzene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,3-Dichlorobenzene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,4-Dichlorobenzene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Dichlorodifluoromethane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,1-Dichloroethane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,1-Dichloroethene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,2-Dichloropropane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,3-Dichloropropane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
2,2-Dichloropropane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,1-Dichloropropene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Hexachlorobutadiene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Isopropylbenzene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
4-Isopropyltoluene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Methylene chloride	ND	0.00284		mg/Kg	1	10/9/2012 1:32:00 AM
n-Butylbenzene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
2-Hexanone	ND	0.00947		mg/Kg	1	10/9/2012 1:32:00 AM
n-Propylbenzene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
sec-Butylbenzene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Styrene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
4-Methyl-2-pentanone	ND	0.00947		mg/Kg	1	10/9/2012 1:32:00 AM
tert-Butylbenzene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,1,1,2-Tetrachloroethane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,1,2,2-Tetrachloroethane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Tetrachloroethene (PCE)	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
trans-1,2-DCE	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
trans-1,3-Dichloropropene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,2,3-Trichlorobenzene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,2,4-Trichlorobenzene	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,1,1-Trichloroethane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
1,1,2-Trichloroethane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Trichloroethene (TCE)	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Trichlorofluoromethane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-013 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (14-16')
Collection Date: 10/3/2012 5:45:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Vinyl chloride	ND	0.000947		mg/Kg	1	10/9/2012 1:32:00 AM
Surr: 1,2-Dichloroethane-d4	96.1	70-130		%REC	1	10/9/2012 1:32:00 AM
Surr: 4-Bromofluorobenzene	99.3	70-130		%REC	1	10/9/2012 1:32:00 AM
Surr: Dibromofluoromethane	98.0	70-130		%REC	1	10/9/2012 1:32:00 AM
Surr: Toluene-d8	96.4	70-130		%REC	1	10/9/2012 1:32:00 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-014 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (16-18')
Collection Date: 10/3/2012 6:00:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/6/2012 11:49:13 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/6/2012 11:49:13 PM
Surr: DNOP	97.4	77.6-140		%REC	1	10/6/2012 11:49:13 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/8/2012 7:26:27 PM
Surr: BFB	81.7	84-116	S	%REC	1	10/8/2012 7:26:27 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 11:42:19 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 11:10:31 AM
Arsenic	ND	12		mg/Kg	5	10/11/2012 11:10:31 AM
Barium	690	5.0		mg/Kg	50	10/11/2012 12:52:45 PM
Beryllium	ND	0.75		mg/Kg	5	10/11/2012 11:10:31 AM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 11:10:31 AM
Chromium	7.9	1.5		mg/Kg	5	10/11/2012 11:10:31 AM
Cobalt	3.7	1.5		mg/Kg	5	10/11/2012 11:10:31 AM
Iron	15000	500		mg/Kg	500	10/11/2012 12:55:08 PM
Lead	7.7	1.2		mg/Kg	5	10/11/2012 11:10:31 AM
Manganese	1400	5.0		mg/Kg	50	10/11/2012 12:52:45 PM
Nickel	5.1	2.5		mg/Kg	5	10/11/2012 11:10:31 AM
Selenium	ND	12		mg/Kg	5	10/11/2012 11:10:31 AM
Silver	ND	1.2		mg/Kg	5	10/11/2012 11:10:31 AM
Vanadium	34	12		mg/Kg	5	10/11/2012 11:10:31 AM
Zinc	ND	12		mg/Kg	5	10/11/2012 11:10:31 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Aniline	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Anthracene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Azobenzene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/10/2012 10:20:31 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-014 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (16-18')
Collection Date: 10/3/2012 6:00:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/10/2012 10:20:31 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Carbazole	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 10:20:31 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/10/2012 10:20:31 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/10/2012 10:20:31 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Chrysene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/10/2012 10:20:31 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/10/2012 10:20:31 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/10/2012 10:20:31 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/10/2012 10:20:31 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/10/2012 10:20:31 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 10:20:31 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/10/2012 10:20:31 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 10:20:31 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 10:20:31 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Fluorene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Isophorone	ND	0.50		mg/Kg	1	10/10/2012 10:20:31 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/10/2012 10:20:31 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Naphthalene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-014 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (16-18')
Collection Date: 10/3/2012 6:00:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/10/2012 10:20:31 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/10/2012 10:20:31 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/10/2012 10:20:31 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/10/2012 10:20:31 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Phenol	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Pyrene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Pyridine	ND	0.50		mg/Kg	1	10/10/2012 10:20:31 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 10:20:31 AM
Surr: 2,4,6-Tribromophenol	89.7	21.3-145		%REC	1	10/10/2012 10:20:31 AM
Surr: 2-Fluorobiphenyl	83.9	20-131		%REC	1	10/10/2012 10:20:31 AM
Surr: 2-Fluorophenol	98.1	11.9-130		%REC	1	10/10/2012 10:20:31 AM
Surr: 4-Terphenyl-d14	70.5	25.1-149		%REC	1	10/10/2012 10:20:31 AM
Surr: Nitrobenzene-d5	91.1	25.6-137		%REC	1	10/10/2012 10:20:31 AM
Surr: Phenol-d5	95.7	20.3-132		%REC	1	10/10/2012 10:20:31 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Toluene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Ethylbenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Xylenes, Total	ND	0.00208		mg/Kg	1	10/9/2012 2:02:39 AM
Methyl tert-butyl ether (MTBE)	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,2,4-Trimethylbenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,3,5-Trimethylbenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,2-Dichloroethane (EDC)	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,2-Dibromoethane (EDB)	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Naphthalene	ND	0.00208		mg/Kg	1	10/9/2012 2:02:39 AM
1-Methylnaphthalene	ND	0.00417		mg/Kg	1	10/9/2012 2:02:39 AM
2-Methylnaphthalene	ND	0.00417		mg/Kg	1	10/9/2012 2:02:39 AM
Acetone	0.0379	0.0104		mg/Kg	1	10/9/2012 2:02:39 AM
Bromobenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Bromodichloromethane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Bromoform	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Bromomethane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
2-Butanone	ND	0.0104		mg/Kg	1	10/9/2012 2:02:39 AM
Carbon tetrachloride	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Chlorobenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Chloroethane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-014 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (16-18')
Collection Date: 10/3/2012 6:00:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Chloromethane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
2-Chlorotoluene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Carbon disulfide	ND	0.0104		mg/Kg	1	10/9/2012 2:02:39 AM
4-Chlorotoluene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
cis-1,2-DCE	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
cis-1,3-Dichloropropene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,2-Dibromo-3-chloropropane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Dibromochloromethane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Dibromomethane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,2-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,3-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,4-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Dichlorodifluoromethane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,1-Dichloroethane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,1-Dichloroethene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,2-Dichloropropane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,3-Dichloropropane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
2,2-Dichloropropane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,1-Dichloropropene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Hexachlorobutadiene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Isopropylbenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
4-Isopropyltoluene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Methylene chloride	ND	0.00313		mg/Kg	1	10/9/2012 2:02:39 AM
n-Butylbenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
2-Hexanone	ND	0.0104		mg/Kg	1	10/9/2012 2:02:39 AM
n-Propylbenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
sec-Butylbenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Styrene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
4-Methyl-2-pentanone	ND	0.0104		mg/Kg	1	10/9/2012 2:02:39 AM
tert-Butylbenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,1,1,2-Tetrachloroethane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,1,2,2-Tetrachloroethane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Tetrachloroethene (PCE)	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
trans-1,2-DCE	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
trans-1,3-Dichloropropene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,2,3-Trichlorobenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,2,4-Trichlorobenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,1,1-Trichloroethane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
1,1,2-Trichloroethane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Trichloroethene (TCE)	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Trichlorofluoromethane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-5 (16-18')
Project: SWMU NO.1
Collection Date: 10/3/2012 6:00:00 PM
Lab ID: 1210332-014 **Matrix:** SOIL **Received Date:** 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Vinyl chloride	ND	0.00104		mg/Kg	1	10/9/2012 2:02:39 AM
Surr: 1,2-Dichloroethane-d4	99.7	70-130		%REC	1	10/9/2012 2:02:39 AM
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	1	10/9/2012 2:02:39 AM
Surr: Dibromofluoromethane	101	70-130		%REC	1	10/9/2012 2:02:39 AM
Surr: Toluene-d8	102	70-130		%REC	1	10/9/2012 2:02:39 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-015 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (24-25')
Collection Date: 10/3/2012 6:10:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/7/2012 12:14:21 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/7/2012 12:14:21 AM
Surr: DNOP	95.8	77.6-140		%REC	1	10/7/2012 12:14:21 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/8/2012 7:56:22 PM
Surr: BFB	88.5	84-116		%REC	1	10/8/2012 7:56:22 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/9/2012 11:29:40 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 2:22:14 PM
Arsenic	ND	12		mg/Kg	5	10/11/2012 11:29:11 AM
Barium	630	5.0		mg/Kg	50	10/11/2012 12:57:46 PM
Beryllium	ND	0.75		mg/Kg	5	10/11/2012 11:29:11 AM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 11:29:11 AM
Chromium	7.7	1.5		mg/Kg	5	10/11/2012 11:29:11 AM
Cobalt	3.5	1.5		mg/Kg	5	10/11/2012 11:29:11 AM
Iron	8700	500		mg/Kg	500	10/11/2012 1:00:09 PM
Lead	3.5	1.2		mg/Kg	5	10/11/2012 11:29:11 AM
Manganese	1200	5.0		mg/Kg	50	10/11/2012 12:57:46 PM
Nickel	4.9	2.5		mg/Kg	5	10/11/2012 11:29:11 AM
Selenium	ND	12		mg/Kg	5	10/11/2012 11:29:11 AM
Silver	ND	1.2		mg/Kg	5	10/11/2012 11:29:11 AM
Vanadium	14	12		mg/Kg	5	10/11/2012 11:29:11 AM
Zinc	ND	12		mg/Kg	5	10/11/2012 11:29:11 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Aniline	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Anthracene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Azobenzene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/10/2012 2:35:58 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM

Qualifiers:

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-015 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (24-25')
Collection Date: 10/3/2012 6:10:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/10/2012 2:35:58 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Carbazole	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 2:35:58 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/10/2012 2:35:58 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/10/2012 2:35:58 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Chrysene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/10/2012 2:35:58 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/10/2012 2:35:58 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/10/2012 2:35:58 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/10/2012 2:35:58 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/10/2012 2:35:58 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 2:35:58 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/10/2012 2:35:58 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 2:35:58 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 2:35:58 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Fluorene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Isophorone	ND	0.50		mg/Kg	1	10/10/2012 2:35:58 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/10/2012 2:35:58 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Naphthalene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-015 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (24-25')
Collection Date: 10/3/2012 6:10:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/10/2012 2:35:58 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/10/2012 2:35:58 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/10/2012 2:35:58 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/10/2012 2:35:58 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Phenol	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Pyrene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Pyridine	ND	0.50		mg/Kg	1	10/10/2012 2:35:58 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 2:35:58 AM
Surr: 2,4,6-Tribromophenol	84.6	21.3-145		%REC	1	10/10/2012 2:35:58 AM
Surr: 2-Fluorobiphenyl	87.7	20-131		%REC	1	10/10/2012 2:35:58 AM
Surr: 2-Fluorophenol	84.5	11.9-130		%REC	1	10/10/2012 2:35:58 AM
Surr: 4-Terphenyl-d14	80.6	25.1-149		%REC	1	10/10/2012 2:35:58 AM
Surr: Nitrobenzene-d5	101	25.6-137		%REC	1	10/10/2012 2:35:58 AM
Surr: Phenol-d5	92.9	20.3-132		%REC	1	10/10/2012 2:35:58 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00403	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Toluene	0.00910	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Ethylbenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Xylenes, Total	ND	0.00207		mg/Kg	1	10/9/2012 2:33:23 AM
Methyl tert-butyl ether (MTBE)	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,2,4-Trimethylbenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,3,5-Trimethylbenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,2-Dichloroethane (EDC)	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,2-Dibromoethane (EDB)	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Naphthalene	ND	0.00207		mg/Kg	1	10/9/2012 2:33:23 AM
1-Methylnaphthalene	ND	0.00414		mg/Kg	1	10/9/2012 2:33:23 AM
2-Methylnaphthalene	ND	0.00414		mg/Kg	1	10/9/2012 2:33:23 AM
Acetone	0.0485	0.0104		mg/Kg	1	10/9/2012 2:33:23 AM
Bromobenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Bromodichloromethane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Bromoform	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Bromomethane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
2-Butanone	ND	0.0104		mg/Kg	1	10/9/2012 2:33:23 AM
Carbon tetrachloride	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Chlorobenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Chloroethane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-015 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (24-25')
Collection Date: 10/3/2012 6:10:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Chloromethane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
2-Chlorotoluene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Carbon disulfide	ND	0.0104		mg/Kg	1	10/9/2012 2:33:23 AM
4-Chlorotoluene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
cis-1,2-DCE	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
cis-1,3-Dichloropropene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,2-Dibromo-3-chloropropane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Dibromochloromethane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Dibromomethane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,2-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,3-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,4-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Dichlorodifluoromethane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,1-Dichloroethane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,1-Dichloroethene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,2-Dichloropropane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,3-Dichloropropane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
2,2-Dichloropropane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,1-Dichloropropene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Hexachlorobutadiene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Isopropylbenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
4-Isopropyltoluene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Methylene chloride	ND	0.00311		mg/Kg	1	10/9/2012 2:33:23 AM
n-Butylbenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
2-Hexanone	ND	0.0104		mg/Kg	1	10/9/2012 2:33:23 AM
n-Propylbenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
sec-Butylbenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Styrene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
4-Methyl-2-pentanone	ND	0.0104		mg/Kg	1	10/9/2012 2:33:23 AM
tert-Butylbenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,1,1,2-Tetrachloroethane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,1,2,2-Tetrachloroethane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Tetrachloroethene (PCE)	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
trans-1,2-DCE	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
trans-1,3-Dichloropropene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,2,3-Trichlorobenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,2,4-Trichlorobenzene	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,1,1-Trichloroethane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
1,1,2-Trichloroethane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Trichloroethene (TCE)	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Trichlorofluoromethane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM

Qualifiers:

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

Analytical Report
Lab Order **1210332**
Date Reported: **11/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210332-015 **Matrix:** SOIL

Client Sample ID: SWMU 1-5 (24-25')
Collection Date: 10/3/2012 6:10:00 PM
Received Date: 10/5/2012 6:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Vinyl chloride	ND	0.00104		mg/Kg	1	10/9/2012 2:33:23 AM
Surr: 1,2-Dichloroethane-d4	118	70-130		%REC	1	10/9/2012 2:33:23 AM
Surr: 4-Bromofluorobenzene	81.0	70-130		%REC	1	10/9/2012 2:33:23 AM
Surr: Dibromofluoromethane	99.8	70-130		%REC	1	10/9/2012 2:33:23 AM
Surr: Toluene-d8	97.9	70-130		%REC	1	10/9/2012 2:33:23 AM

Qualifiers:

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

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

Batch #: 121009047
Project Name: 1210332

Analytical Results Report

Sample Number 121009047-001 **Sampling Date** 10/3/2012 **Date/Time Received** 10/9/2012 12:00 P
Client Sample ID 1210332-001D / SWMU 1-4 (10-12)DUP **Sampling Time** 1:15 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/15/2012	CRW	EPA 335.4	
%moisture	11.8	Percent				%moisture	

Sample Number 121009047-002 **Sampling Date** 10/3/2012 **Date/Time Received** 10/9/2012 12:00 P
Client Sample ID 1210332-002D / SWMU 1-4 (17-18) **Sampling Time** 1:45 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	1.59	mg/Kg	0.3	10/15/2012	CRW	EPA 335.4	
%moisture	21	Percent				%moisture	

Sample Number 121009047-003 **Sampling Date** 10/3/2012 **Date/Time Received** 10/9/2012 12:00 P
Client Sample ID 1210332-003D / SWMU 1-4 (23-24) **Sampling Time** 2:00 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/15/2012	CRW	EPA 335.4	
%moisture	16.4	Percent				%moisture	

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

Batch #: 121009047
Project Name: 1210332

Analytical Results Report

Sample Number 121009047-004 **Sampling Date** 10/3/2012 **Date/Time Received** 10/9/2012 12:00 P
Client Sample ID 1210332-005F / SWMU 1-3 GW **Sampling Time** 9:30 AM
Matrix Water **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0325	mg/L	0.01	10/16/2012	CRW	EPA 335.4	

Sample Number 121009047-005 **Sampling Date** 10/3/2012 **Date/Time Received** 10/9/2012 12:00 P
Client Sample ID 1210332-006D / SWMU 1-4 (8-10) **Sampling Time** 1:00 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/15/2012	CRW	EPA 335.4	
%moisture	13.2	Percent				%moisture	

Sample Number 121009047-006 **Sampling Date** 10/3/2012 **Date/Time Received** 10/9/2012 12:00 P
Client Sample ID 1210332-007D / SWMU 1-4 (10-12) **Sampling Time** 1:15 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/17/2012	CRW	EPA 335.4	
%moisture	10.5	Percent				%moisture	

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

Batch #: 121009047
Project Name: 1210332

Analytical Results Report

Sample Number 121009047-007 **Sampling Date** 10/3/2012 **Date/Time Received** 10/9/2012 12:00 P
Client Sample ID 1210332-008D / SWMU 1-5 (26-27) **Sampling Time** 6:20 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/17/2012	CRW	EPA 335.4	
%moisture	19	Percent				%moisture	

Sample Number 121009047-008 **Sampling Date** 10/3/2012 **Date/Time Received** 10/9/2012 12:00 P
Client Sample ID 1210332-009D / SWMU 1-5 (27-28) **Sampling Time** 6:30 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/17/2012	CRW	EPA 335.4	
%moisture	12.5	Percent				%moisture	

Sample Number 121009047-009 **Sampling Date** 10/3/2012 **Date/Time Received** 10/9/2012 12:00 P
Client Sample ID 1210332-010F / EB100312 **Sampling Time** 6:44 PM
Matrix Water **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	10/16/2012	CRW	EPA 335.4	

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

Batch #: 121009047
Project Name: 1210332

Analytical Results Report

Sample Number 121009047-010 **Sampling Date** 10/3/2012 **Date/Time Received** 10/9/2012 12:00 P
Client Sample ID 1210332-012D / SWMU 1-5 (10-12) **Sampling Time** 5:30 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/17/2012	CRW	EPA 335.4	
%moisture	8.5	Percent				%moisture	

Sample Number 121009047-011 **Sampling Date** 10/3/2012 **Date/Time Received** 10/9/2012 12:00 P
Client Sample ID 1210332-013D / SWMU 1-5 (14-16) **Sampling Time** 5:45 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/17/2012	CRW	EPA 335.4	
%moisture	12.6	Percent				%moisture	

Sample Number 121009047-012 **Sampling Date** 10/3/2012 **Date/Time Received** 10/9/2012 12:00 P
Client Sample ID 1210332-014D / SWMU 1-5 (16-18) **Sampling Time** 6:00 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/17/2012	CRW	EPA 335.4	
%moisture	10.9	Percent				%moisture	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	121009047
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1210332
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	121009047-013	**Sampling Date**	10/3/2012	**Date/Time Received**	10/9/2012 12:00 P
Client Sample ID	1210332-015D / SWMU 1-5 (24-25)			**Sampling Time**	6:10 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/17/2012	CRW	EPA 335.4	
%moisture	16.1	Percent				%moisture	

Authorized Signature

John Coddington, Lab Manager

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

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The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R6141**	RunNo: **6141**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **176939** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R6141**	RunNo: **6141**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **176940** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Beryllium	0.51	0.0020	0.5000	0	101	85	115			
[illegible]m	0.50	0.0020	0.5000	0	100	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.2	85	115			
Iron	0.49	0.020	0.5000	0	98.1	85	115			
Manganese	0.49	0.0020	0.5000	0	97.7	85	115			
Nickel	0.47	0.010	0.5000	0	94.9	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Vanadium	0.51	0.050	0.5000	0	101	85	115			

Sample ID **1210368-001BMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R6141**	RunNo: **6141**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177005** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0.02430	96.8	70	130			
Beryllium	0.51	0.0020	0.5000	0	102	70	130			
Cadmium	0.49	0.0020	0.5000	0	97.8	70	130			

Sample ID **1210368-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R6141**	RunNo: **6141**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177006** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0.02430	97.1	70	130	0.302	20	
Beryllium	0.52	0.0020	0.5000	0	103	70	130	0.724	20	
Cadmium	0.50	0.0020	0.5000	0	99.0	70	130	1.24	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R6212**	RunNo: **6212**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178907** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	ND	0.0060								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R6212**	RunNo: **6212**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178908** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Zinc	0.51	0.010	0.5000	0	101	85	115			

Sample ID **1210368-001BMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R6212**	RunNo: **6212**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178913** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.50	0.0060	0.5000	0	101	70	130			

Sample ID **1210368-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R6212**	RunNo: **6212**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178914** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.50	0.0060	0.5000	0	99.2	70	130	1.42	20	

Sample ID **MB-4293**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **4293**	RunNo: **6265**
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **180580** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **LCS-4293**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **4293**	RunNo: **6265**
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **180581** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	102	85	115			
Beryllium	0.53	0.0020	0.5000	0	106	85	115			
Cadmium	0.53	0.0020	0.5000	0	106	85	115			
Chromium	0.51	0.0060	0.5000	0	101	85	115			
Cobalt	0.50	0.0060	0.5000	0	101	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Manganese	0.51	0.0020	0.5000	0	101	85	115			
Nickel	0.49	0.010	0.5000	0	98.2	85	115			
Silver	0.11	0.0050	0.1000	0	107	85	115			
Vanadium	0.52	0.050	0.5000	0	105	85	115			
Zinc	0.50	0.010	0.5000	0	101	85	115			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	MB-4293	SampType:	MBLK	TestCode:	EPA 200.8: Metals					
Client ID:	PBW	Batch ID:	4293	RunNo:	6249					
Prep Date:	10/15/2012	Analysis Date:	10/15/2012	SeqNo:	179961	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0025								
Arsenic	ND	0.0025								
Lead	ND	0.0025								
Selenium	ND	0.0025								

Sample ID	1210046-001AMS	SampType:	MS	TestCode:	EPA 200.8: Metals					
Client ID:	BatchQC	Batch ID:	R6315	RunNo:	6315					
Prep Date:		Analysis Date:	10/17/2012	SeqNo:	181878	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.001891	99.5	70	130			

Sample ID	1210367-001BMS	SampType:	MS	TestCode:	EPA 200.8: Metals					
Client ID:	BatchQC	Batch ID:	R6315	RunNo:	6315					
Prep Date:		Analysis Date:	10/17/2012	SeqNo:	181885	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	98.6	70	130			
Arsenic	0.035	0.0010	0.02500	0.01018	101	70	130			
Selenium	0.031	0.0010	0.02500	0.005490	104	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Metals					
Client ID:	LCSW	Batch ID:	R6315	RunNo:	6315					
Prep Date:		Analysis Date:	10/17/2012	SeqNo:	181905	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	101	85	115			
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
Lead	0.025	0.0010	0.02500	0	99.9	85	115			
Selenium	0.026	0.0010	0.02500	0	106	85	115			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Metals					
Client ID:	LCSW	Batch ID:	R6315	RunNo:	6315					
Prep Date:		Analysis Date:	10/17/2012	SeqNo:	181906	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	101	85	115			
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
Lead	0.025	0.0010	0.02500	0	99.6	85	115			
Selenium	0.027	0.0010	0.02500	0	106	85	115			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181907** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.024	0.0010	0.02500	0	96.7	85	115			
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Lead	0.025	0.0010	0.02500	0	100	85	115			
Selenium	0.026	0.0010	0.02500	0	106	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181909** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6315**	RunNo: **6315**
Date:	Analysis Date: **10/17/2012**	SeqNo: **181910** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181911** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **1210585-001CMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181948** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.026	0.0010	0.02500	0	103	70	130			
Arsenic	0.026	0.0010	0.02500	0	102	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210585-001CMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181948** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0	99.7	70	130			
Selenium	0.026	0.0010	0.02500	0	105	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	MB-4279	SampType:	MBLK		TestCode:	EPA Method 245.1: Mercury				
Client ID:	PBW	Batch ID:	4279		RunNo:	6215				
Prep Date:	10/12/2012	Analysis Date:	10/12/2012		SeqNo:	179065	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-4279	SampType:	LCS		TestCode:	EPA Method 245.1: Mercury				
Client ID:	LCSW	Batch ID:	4279		RunNo:	6215				
Prep Date:	10/12/2012	Analysis Date:	10/12/2012		SeqNo:	179066	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.0	80	120			

Sample ID	1210332-010EMS	SampType:	MS		TestCode:	EPA Method 245.1: Mercury				
Client ID:	EB100312	Batch ID:	4279		RunNo:	6215				
Prep Date:	10/12/2012	Analysis Date:	10/12/2012		SeqNo:	179069	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.9	75	125			

Sample ID	1210332-010EMSD	SampType:	MSD		TestCode:	EPA Method 245.1: Mercury				
t ID:	EB100312	Batch ID:	4279		RunNo:	6215				
Prep Date:	10/12/2012	Analysis Date:	10/12/2012		SeqNo:	179072	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.7	75	125	0.749	20	

iers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6038**	RunNo: **6038**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **173988** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6038**	RunNo: **6038**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **173989** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	98.7	90	110			
Chloride	4.6	0.50	5.000	0	91.4	90	110			
Sulfate	9.0	0.50	10.00	0	90.2	90	110			

Sample ID **1210309-005AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6038**	RunNo: **6038**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174013** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.2	0.10	0.5000	1.745	84.0	76.6	110			

Sample ID **1210309-005AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6038**	RunNo: **6038**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174014** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.2	0.10	0.5000	1.745	87.2	76.6	110	0.741	20	

Sample ID **1210320-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6038**	RunNo: **6038**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174024** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.4	0.10	0.5000	0.9401	92.6	76.6	110			

Sample ID **1210320-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6038**	RunNo: **6038**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174025** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.4	0.10	0.5000	0.9401	93.5	76.6	110	0.313	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6038**	RunNo: **6038**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174043** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6038**	RunNo: **6038**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174044** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Chloride	4.8	0.50	5.000	0	96.7	90	110			
Sulfate	9.8	0.50	10.00	0	97.7	90	110			

Sample ID **1210361-003AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6038**	RunNo: **6038**
Prep Date:	Analysis Date: **10/6/2012**	SeqNo: **174065** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.92	0.10	0.5000	0.4398	96.0	76.6	110			
Chloride	10	0.50	5.000	4.860	105	87.8	111			
Sulfate	10	0.50	10.00	0.6275	94.7	84.6	122			

Sample ID **1210361-003AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6038**	RunNo: **6038**
Prep Date:	Analysis Date: **10/6/2012**	SeqNo: **174066** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.91	0.10	0.5000	0.4398	94.5	76.6	110	0.797	20	
Chloride	10	0.50	5.000	4.860	106	87.8	111	0.396	20	
Sulfate	10	0.50	10.00	0.6275	95.7	84.6	122	0.930	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6177**	RunNo: **6177**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178038** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	LCS	SampType:	LCS		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSW	Batch ID:	R6177		RunNo:	6177				
Prep Date:		Analysis Date:	10/11/2012		SeqNo:	178039	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.2	90	110			

Sample ID	1210607-001AMS	SampType:	MS		TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC	Batch ID:	R6177		RunNo:	6177				
Prep Date:		Analysis Date:	10/11/2012		SeqNo:	178041	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.5	0.50	5.000	4.628	97.8	87.8	111			

Sample ID	1210607-001AMSD	SampType:	MSD		TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC	Batch ID:	R6177		RunNo:	6177				
Prep Date:		Analysis Date:	10/11/2012		SeqNo:	178042	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.6	0.50	5.000	4.628	98.5	87.8	111	0.323	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4148**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4148**	RunNo: **6027**
Prep Date: **10/5/2012**	Analysis Date: **10/6/2012**	SeqNo: **173597** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		104	77.6	140			

Sample ID **LCS-4148**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4148**	RunNo: **6027**
Prep Date: **10/5/2012**	Analysis Date: **10/6/2012**	SeqNo: **173599** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	10	50.00	0	70.2	52.6	130			
Surr: DNOP	4.4		5.000		87.4	77.6	140			

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4137**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **4137**	RunNo: **6039**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **174081** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		108	79.5	166			

Sample ID **LCS-4137**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **4137**	RunNo: **6039**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **174082** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.2	1.0	5.000	0	104	74	157			
Surr: DNOP	0.45		0.5000		90.2	79.5	166			

Sample ID **LCSD-4137**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **4137**	RunNo: **6039**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **174083** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.5	1.0	5.000	0	109	74	157	5.45	23	
Surr: DNOP	0.45		0.5000		90.8	79.5	166	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **R6020**	RunNo: **6020**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **173460** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		104	84	116			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R6020**	RunNo: **6020**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **173461** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.0	74	117			
Surr: BFB	820		1000		82.5	84	116			S

Sample ID **1210279-011BMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6020**	RunNo: **6020**
Prep Date:	Analysis Date: **10/6/2012**	SeqNo: **173465** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	12	5.0	15.46	0	78.9	70	130			
BFB	670		618.5		108	84	116			

Sample ID **1210279-011BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6020**	RunNo: **6020**
Prep Date:	Analysis Date: **10/6/2012**	SeqNo: **173466** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	14	5.0	15.46	0	90.8	70	130	14.0	22.1	
Surr: BFB	650		618.5		105	84	116	0	0	

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **R6043**	RunNo: **6043**
Prep Date:	Analysis Date: **10/6/2012**	SeqNo: **174099** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		105	84	116			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R6043**	RunNo: **6043**
Prep Date:	Analysis Date: **10/6/2012**	SeqNo: **174100** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.6	74	117			
Surr: BFB	870		1000		87.0	84	116			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210332-013BMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **SWMU 1-5 (14-16')**	Batch ID: **R6043**	RunNo: **6043**
Prep Date:	Analysis Date: **10/6/2012**	SeqNo: **174108** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	15	5.0	17.66	0	84.7	70	130			
Surr: BFB	610		706.4		85.8	84	116			

Sample ID **1210332-013BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **SWMU 1-5 (14-16')**	Batch ID: **R6043**	RunNo: **6043**
Prep Date:	Analysis Date: **10/6/2012**	SeqNo: **174109** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	15	5.0	17.66	0	87.1	70	130	2.79	22.1	
Surr: BFB	670		706.4		95.3	84	116	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R6020**	RunNo: **6020**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **173451** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	21		20.00		104	69.8	119			

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R6043**	RunNo: **6043**
Prep Date:	Analysis Date: **10/6/2012**	SeqNo: **174095** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	21		20.00		105	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R6043**	RunNo: **6043**
Prep Date:	Analysis Date: **10/6/2012**	SeqNo: **174096** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	93.6	75.9	119			
BFB	17		20.00		87.0	69.8	119			

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R6074**	RunNo: **6074**
Prep Date:	Analysis Date: **10/8/2012**	SeqNo: **175153** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	20		20.00		99.3	69.8	119			

Sample ID **2.5UG GRO LCSB**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R6074**	RunNo: **6074**
Prep Date:	Analysis Date: **10/8/2012**	SeqNo: **175154** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	93.3	75.9	119			
Surr: BFB	16		20.00		81.2	69.8	119			

Sample ID **1210333-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6074**	RunNo: **6074**
Prep Date:	Analysis Date: **10/9/2012**	SeqNo: **175202** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	92.2	63.5	131			
Surr: BFB	23		20.00		117	69.8	119			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210333-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6074**	RunNo: **6074**
Prep Date:	Analysis Date: **10/9/2012**	SeqNo: **175203** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.47	0.050	0.5000	0	95.0	63.5	131	2.99	16.7	
Surr: BFB	24		20.00		122	69.8	119	0	0	S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4139**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4139**	RunNo: **6123**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **176473** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
Naphthalene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
2-Butanone	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4139**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4139**	RunNo: **6123**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **176473** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	43.5		50.00		86.9	70	130			
Surr: 4-Bromofluorobenzene	48.2		50.00		96.4	70	130			
Surr: Dibromofluoromethane	51.1		50.00		102	70	130			
Surr: Toluene-d8	48.6		50.00		97.1	70	130			

Sample ID **lcs-4139**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4139**	RunNo: **6123**
Prep Date: **10/5/2012**	Analysis Date: **10/8/2012**	SeqNo: **176475** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	10.6	1.00	10.00	0	106	60	140			
Toluene	9.55	1.00	10.00	0	95.5	60	140			
Chlorobenzene	9.91	1.00	10.00	0	99.1	60	140			
1,1-Dichloroethene	11.6	1.00	10.00	0	116	60	140			
Trichloroethene (TCE)	9.40	1.00	10.00	0	94.0	60	140			
Surr: 1,2-Dichloroethane-d4	45.7		50.00		91.3	70	130			
Surr: 4-Bromofluorobenzene	39.6		50.00		79.3	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	**lcs-4139**	SampType: **LCS**		TestCode: **Method 8260B/5035LOW: VOLATILES**					
Client ID:	**LCSS**	Batch ID: **4139**		RunNo: **6123**					
Prep Date:	**10/5/2012**	Analysis Date: **10/8/2012**		SeqNo: **176475**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	49.3		50.00		98.5	70	130			
Surr: Toluene-d8	47.1		50.00		94.2	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6048**	RunNo: **6048**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174216** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

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- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6048**	RunNo: **6048**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174216** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
richloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.7		10.00		87.4	70	130			
Surr: 4-Bromofluorobenzene	8.1		10.00		80.6	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	7.9		10.00		79.4	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6048**	RunNo: **6048**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174218** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.4	70	130			
Toluene	18	1.0	20.00	0	90.7	80	120			
Chlorobenzene	17	1.0	20.00	0	85.9	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	97.8	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	84.3	70	130			
Surr: 1,2-Dichloroethane-d4	8.3		10.00		82.6	70	130			
Surr: 4-Bromofluorobenzene	7.8		10.00		78.4	70	130			

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6048**	RunNo: **6048**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174218** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.9		10.00		99.0	70	130			
Surr: Toluene-d8	7.8		10.00		78.4	70	130			

Sample ID **1210179-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R6048**	RunNo: **6048**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174222** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	100	66.8	128			
Toluene	20	1.0	20.00	0	99.4	70	130			
Chlorobenzene	18	1.0	20.00	0	90.5	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	103	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	85.5	70	130			
Surr: 1,2-Dichloroethane-d4	8.6		10.00		85.7	70	130			
Surr: 4-Bromofluorobenzene	8.5		10.00		84.9	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	8.1		10.00		81.2	70	130			

Sample ID **1210179-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R6048**	RunNo: **6048**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174223** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.8	66.8	128	3.35	16.7	
Toluene	19	1.0	20.00	0	96.1	70	130	3.34	18.7	
Chlorobenzene	18	1.0	20.00	0	90.9	70	130	0.385	19.5	
1,1-Dichloroethene	20	1.0	20.00	0	97.6	70	130	5.89	16.7	
Trichloroethene (TCE)	16	1.0	20.00	0	79.2	70	130	7.68	17.5	
Surr: 1,2-Dichloroethane-d4	8.3		10.00		83.3	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.3		10.00		83.4	70	130	0	0	
Surr: Dibromofluoromethane	9.8		10.00		97.9	70	130	0	0	
Surr: Toluene-d8	8.1		10.00		81.2	70	130	0	0	

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6048**	RunNo: **6048**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174241** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6048**	RunNo: **6048**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174241** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
orm	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6048**	RunNo: **6048**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174241** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.2		10.00		82.4	70	130			
Surr: 4-Bromofluorobenzene	8.3		10.00		82.8	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.0	70	130			
Surr: Toluene-d8	8.1		10.00		81.1	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6048**	RunNo: **6048**
Prep Date:	Analysis Date: **10/5/2012**	SeqNo: **174243** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	70	130			
Toluene	19	1.0	20.00	0	93.1	80	120			
Chlorobenzene	17	1.0	20.00	0	87.4	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	104	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	84.8	70	130			
Surr: 1,2-Dichloroethane-d4	8.5		10.00		84.6	70	130			
Surr: 4-Bromofluorobenzene	8.3		10.00		83.3	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	7.9		10.00		78.6	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210340-003a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R6048**	RunNo: **6048**
Prep Date:	Analysis Date: **10/6/2012**	SeqNo: **174249** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	380	20	400.0	0	95.3	70	130			
1,1-Dichloroethene	410	20	400.0	0	103	70	130			
Trichloroethene (TCE)	350	20	400.0	0	88.7	70	130			
Surr: 1,2-Dichloroethane-d4	170		200.0		83.2	70	130			
Surr: 4-Bromofluorobenzene	160		200.0		77.8	70	130			
Surr: Dibromofluoromethane	200		200.0		101	70	130			
Surr: Toluene-d8	160		200.0		79.7	70	130			

Sample ID **1210340-003a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R6048**	RunNo: **6048**
Prep Date:	Analysis Date: **10/6/2012**	SeqNo: **174250** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	360	20	400.0	0	90.7	70	130	5.00	19.5	
1,1-Dichloroethene	380	20	400.0	0	95.9	70	130	7.00	16.7	
Trichloroethene (TCE)	330	20	400.0	0	82.9	70	130	6.82	17.5	
Surr: 1,2-Dichloroethane-d4	170		200.0		84.4	70	130	0	0	
4-Bromofluorobenzene	160		200.0		79.7	70	130	0	0	
Surr: Dibromofluoromethane	200		200.0		99.6	70	130	0	0	
Surr: Toluene-d8	160		200.0		80.6	70	130	0	0	

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6255**	RunNo: **6255**
Prep Date:	Analysis Date: **10/15/2012**	SeqNo: **180303** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6255**	RunNo: **6255**
Prep Date:	Analysis Date: **10/15/2012**	SeqNo: **180303** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6255**	RunNo: **6255**
Prep Date:	Analysis Date: **10/15/2012**	SeqNo: **180303** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.1	70	130			
Surr: Toluene-d8	9.9		10.00		99.3	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6255**	RunNo: **6255**
Prep Date:	Analysis Date: **10/15/2012**	SeqNo: **180305** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	109	70	130			
Toluene	21	1.0	20.00	0	105	80	120			
Chlorobenzene	21	1.0	20.00	0	107	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	92.3	73.7	122			
Trichloroethene (TCE)	19	1.0	20.00	0	92.6	70	130			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.2	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.7	70	130			
Surr: Dibromofluoromethane	9.0		10.00		90.3	70	130			
Surr: Toluene-d8	9.4		10.00		93.9	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4140**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4140**	RunNo: **6106**
Prep Date: **10/5/2012**	Analysis Date: **10/9/2012**	SeqNo: **176018** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4140**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4140**	RunNo: **6106**
Prep Date: **10/5/2012**	Analysis Date: **10/9/2012**	SeqNo: **176018** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
aniline	ND	0.40								
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	2.3		3.330		68.7	21.3	145			
Surr: 2-Fluorobiphenyl	0.94		1.670		56.2	20	131			
Surr: 2-Fluorophenol	2.0		3.330		59.6	11.9	130			
Surr: 4-Terphenyl-d14	0.96		1.670		57.5	25.1	149			
Surr: Nitrobenzene-d5	1.0		1.670		59.9	25.6	137			
Surr: Phenol-d5	2.1		3.330		62.9	20.3	132			

Sample ID **lcs-4140**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4140**	RunNo: **6106**
Prep Date: **10/5/2012**	Analysis Date: **10/9/2012**	SeqNo: **176019** Units: **mg/Kg**

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4140**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4140**	RunNo: **6106**
Prep Date: **10/5/2012**	Analysis Date: **10/9/2012**	SeqNo: **176019** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	0.99	0.20	1.670	0	59.5	49.7	98.1			
4-Chloro-3-methylphenol	2.2	0.50	3.330	0	65.1	43.8	89.1			
2-Chlorophenol	1.9	0.20	3.330	0	57.0	41.1	96.9			
1,4-Dichlorobenzene	0.91	0.20	1.670	0	54.6	41	97.4			
2,4-Dinitrotoluene	1.2	0.50	1.670	0	70.7	44.4	104			
N-Nitrosodi-n-propylamine	1.1	0.20	1.670	0	65.0	39.1	86.9			
4-Nitrophenol	2.1	0.25	3.330	0	62.6	44.2	107			
Pentachlorophenol	1.5	0.40	3.330	0	44.9	36.2	80			
Phenol	2.0	0.20	3.330	0	60.0	42.7	92.7			
Pyrene	0.90	0.20	1.670	0	53.9	34.7	98.8			
1,2,4-Trichlorobenzene	0.88	0.20	1.670	0	52.9	37.8	98.3			
Surr: 2,4,6-Tribromophenol	2.5		3.330		74.6	21.3	145			
Surr: 2-Fluorobiphenyl	1.1		1.670		66.2	20	131			
Surr: 2-Fluorophenol	1.9		3.330		55.8	11.9	130			
Surr: 4-Terphenyl-d14	1.1		1.670		64.8	25.1	149			
Surr: Nitrobenzene-d5	1.0		1.670		60.3	25.6	137			
Surr: Phenol-d5	2.1		3.330		63.6	20.3	132			

Sample ID **1210279-012CMS**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **BatchQC**	Batch ID: **4140**	RunNo: **6106**
Prep Date: **10/5/2012**	Analysis Date: **10/9/2012**	SeqNo: **176040** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.3	0.20	1.684	0	76.6	38.6	100			
4-Chloro-3-methylphenol	2.7	0.50	3.358	0	79.2	35.8	108			
2-Chlorophenol	2.4	0.20	3.358	0	72.3	48.2	96.1			
1,4-Dichlorobenzene	1.1	0.20	1.684	0	66.4	42.5	97.6			
2,4-Dinitrotoluene	1.6	0.50	1.684	0	92.4	51.2	108			
N-Nitrosodi-n-propylamine	1.1	0.20	1.684	0	67.5	31.6	114			
4-Nitrophenol	2.8	0.25	3.358	0	82.3	22.7	144			
Pentachlorophenol	2.1	0.40	3.358	0	61.1	24	109			
Phenol	2.6	0.20	3.358	0	76.4	33.1	108			
Pyrene	1.2	0.20	1.684	0	69.2	42.7	98.9			
1,2,4-Trichlorobenzene	1.1	0.20	1.684	0	64.3	27.1	118			
Surr: 2,4,6-Tribromophenol	2.9		3.358		86.1	21.3	145			
Surr: 2-Fluorobiphenyl	1.2		1.684		73.8	20	131			
Surr: 2-Fluorophenol	2.5		3.358		75.3	11.9	130			
Surr: 4-Terphenyl-d14	1.2		1.684		70.1	25.1	149			
Surr: Nitrobenzene-d5	1.2		1.684		73.1	25.6	137			
Surr: Phenol-d5	2.7		3.358		79.5	20.3	132			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210279-012CMSD**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **BatchQC**	Batch ID: **4140**	RunNo: **6106**
Prep Date: **10/5/2012**	Analysis Date: **10/9/2012**	SeqNo: **176041** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.667	0	74.1	38.6	100	4.39	20	
4-Chloro-3-methylphenol	2.7	0.50	3.324	0	82.1	35.8	108	2.56	20	
2-Chlorophenol	2.3	0.20	3.324	0	68.8	48.2	96.1	5.93	20	
1,4-Dichlorobenzene	1.0	0.20	1.667	0	62.1	42.5	97.6	7.84	20	
2,4-Dinitrotoluene	1.6	0.50	1.667	0	95.5	51.2	108	2.29	20	
N-Nitrosodi-n-propylamine	1.1	0.20	1.667	0	66.7	31.6	114	2.25	20	
4-Nitrophenol	2.9	0.25	3.324	0	88.4	22.7	144	6.14	20	
Pentachlorophenol	2.1	0.40	3.324	0	64.0	24	109	3.56	20	
Phenol	2.3	0.20	3.324	0	69.6	33.1	108	10.3	20	
Pyrene	1.2	0.20	1.667	0	71.4	42.7	98.9	2.04	20	
1,2,4-Trichlorobenzene	1.1	0.20	1.667	0	66.7	27.1	118	2.65	20	
Surr: 2,4,6-Tribromophenol	3.0		3.324		89.8	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.2		1.667		71.8	20	131	0	0	
Surr: 2-Fluorophenol	2.4		3.324		72.3	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.2		1.667		72.5	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.3		1.667		76.8	25.6	137	0	0	
Surr: Phenol-d5	2.6		3.324		77.9	20.3	132	0	0	

Sample ID **mb-4168**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4168**	RunNo: **6106**
Prep Date: **10/8/2012**	Analysis Date: **10/10/2012**	SeqNo: **176042** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4168**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBS**	Batch ID: **4168**	RunNo: **6106**	
Prep Date: **10/8/2012**	Analysis Date: **10/10/2012**	SeqNo: **176042**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4168**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4168**	RunNo: **6106**
Prep Date: **10/8/2012**	Analysis Date: **10/10/2012**	SeqNo: **176042** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	2.8		3.330		84.5	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.670		88.5	20	131			
Surr: 2-Fluorophenol	2.9		3.330		85.8	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		77.1	25.1	149			
Surr: Nitrobenzene-d5	1.5		1.670		90.5	25.6	137			
Surr: Phenol-d5	3.1		3.330		94.0	20.3	132			

Sample ID **lcs-4168**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4168**	RunNo: **6106**
Prep Date: **10/8/2012**	Analysis Date: **10/10/2012**	SeqNo: **176043** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.3	0.20	1.670	0	77.2	49.7	98.1			
4-Chloro-3-methylphenol	2.9	0.50	3.330	0	87.8	43.8	89.1			
2-Chlorophenol	2.8	0.20	3.330	0	83.6	41.1	96.9			
1,4-Dichlorobenzene	1.3	0.20	1.670	0	75.1	41	97.4			
2,4-Dinitrotoluene	1.7	0.50	1.670	0	99.6	44.4	104			
N-Nitrosodi-n-propylamine	1.5	0.20	1.670	0	88.3	39.1	86.9			S
4-Nitrophenol	3.0	0.25	3.330	0	88.8	44.2	107			
Pentachlorophenol	2.1	0.40	3.330	0	64.1	36.2	80			
Phenol	2.7	0.20	3.330	0	80.3	42.7	92.7			
Pyrene	1.2	0.20	1.670	0	74.5	34.7	98.8			
1,2,4-Trichlorobenzene	1.3	0.20	1.670	0	77.2	37.8	98.3			
Surr: 2,4,6-Tribromophenol	2.9		3.330		87.4	21.3	145			
Surr: 2-Fluorobiphenyl	1.4		1.670		85.7	20	131			
Surr: 2-Fluorophenol	2.6		3.330		77.1	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		74.9	25.1	149			
Surr: Nitrobenzene-d5	1.4		1.670		82.0	25.6	137			
Surr: Phenol-d5	2.8		3.330		83.8	20.3	132			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210372-001BMS** SampType: **MS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **BatchQC** Batch ID: **4168** RunNo: **6106**

Prep Date: **10/8/2012** Analysis Date: **10/10/2012** SeqNo: **177069** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	2.1	1.0	1.673	0	127	38.6	100			S
4-Chloro-3-methylphenol	2.5	2.5	3.336	0	75.3	35.8	108			
2-Chlorophenol	2.2	1.0	3.336	0	65.8	48.2	96.1			
1,4-Dichlorobenzene	ND	1.0	1.673	0	57.2	42.5	97.6			
2,4-Dinitrotoluene	ND	2.5	1.673	0	65.9	51.2	108			
N-Nitrosodi-n-propylamine	ND	1.0	1.673	0	0	31.6	114			S
4-Nitrophenol	ND	1.3	3.336	0	0	22.7	144			S
Pentachlorophenol	ND	2.0	3.336	0	53.4	24	109			
Phenol	2.0	1.0	3.336	0	61.3	33.1	108			
Pyrene	1.7	1.0	1.673	1.458	12.8	42.7	98.9			S
1,2,4-Trichlorobenzene	1.1	1.0	1.673	0	68.7	27.1	118			
Surr: 2,4,6-Tribromophenol	1.8		3.336		55.0	21.3	145			
Surr: 2-Fluorobiphenyl	1.2		1.673		69.0	20	131			
Surr: 2-Fluorophenol	2.1		3.336		62.7	11.9	130			
Surr: 4-Terphenyl-d14	1.2		1.673		73.7	25.1	149			
Surr: Nitrobenzene-d5	0		1.673		0	25.6	137			S
Surr: Phenol-d5	2.2		3.336		67.4	20.3	132			

Sample ID **1210372-001BMSD** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **BatchQC** Batch ID: **4168** RunNo: **6106**

Prep Date: **10/8/2012** Analysis Date: **10/10/2012** SeqNo: **177070** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	2.2	0.99	1.661	0	132	38.6	100	3.07	20	S
4-Chloro-3-methylphenol	2.8	2.5	3.312	0	85.5	35.8	108	12.0	20	
2-Chlorophenol	2.5	0.99	3.312	0	76.2	48.2	96.1	14.0	20	
1,4-Dichlorobenzene	1.1	0.99	1.661	0	65.5	42.5	97.6	12.8	20	
2,4-Dinitrotoluene	ND	2.5	1.661	0	63.3	51.2	108	0	20	
N-Nitrosodi-n-propylamine	ND	0.99	1.661	0	0	31.6	114	0	20	S
4-Nitrophenol	3.5	1.2	3.312	0	107	22.7	144	200	20	R
Pentachlorophenol	ND	2.0	3.312	0	59.1	24	109	0	20	
Phenol	2.4	0.99	3.312	0	73.9	33.1	108	18.0	20	
Pyrene	2.0	0.99	1.661	1.458	31.7	42.7	98.9	17.1	20	S
1,2,4-Trichlorobenzene	1.2	0.99	1.661	0	75.0	27.1	118	8.06	20	
Surr: 2,4,6-Tribromophenol	2.3		3.312		70.5	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.3		1.661		79.0	20	131	0	0	
Surr: 2-Fluorophenol	2.5		3.312		74.6	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.3		1.661		78.0	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.3		1.661		80.2	25.6	137	0	0	
Surr: Phenol-d5	2.7		3.312		82.1	20.3	132	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4133**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4133**	RunNo: **6007**
Prep Date: **10/5/2012**	Analysis Date: **10/5/2012**	SeqNo: **173071** Units: **µg/L**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4133**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **4133**	RunNo: **6007**	
Prep Date: **10/5/2012**	Analysis Date: **10/5/2012**	SeqNo: **173071**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	160		200.0		80.9	44.2	126			
Surr: 2-Fluorobiphenyl	77		100.0		77.2	37	114			
Surr: 2-Fluorophenol	130		200.0		66.0	23.4	98			
Surr: 4-Terphenyl-d14	72		100.0		71.9	41.3	116			
Surr: Nitrobenzene-d5	76		100.0		76.3	39.5	118			
Surr: Phenol-d5	120		200.0		58.2	20.9	95.9			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4133**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **4133**	RunNo: **6007**
Prep Date: **10/5/2012**	Analysis Date: **10/5/2012**	SeqNo: **173072** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	61	10	100.0	0	61.0	38.2	99.4			
4-Chloro-3-methylphenol	140	10	200.0	0	71.6	35.5	108			
2-Chlorophenol	140	10	200.0	0	70.5	29.8	106			
1,4-Dichlorobenzene	65	10	100.0	0	65.4	32.6	91.5			
2,4-Dinitrotoluene	67	10	100.0	0	67.0	44.7	112			
N-Nitrosodi-n-propylamine	73	10	100.0	0	72.6	38.5	105			
4-Nitrophenol	92	10	200.0	0	45.9	11.6	73.1			
Pentachlorophenol	95	20	200.0	0	47.6	20.2	93			
Phenol	120	10	200.0	0	60.3	23	66.1			
Pyrene	61	10	100.0	0	61.4	40.1	101			
1,2,4-Trichlorobenzene	62	10	100.0	0	62.0	37.7	99.1			
Surr: 2,4,6-Tribromophenol	160		200.0		78.1	44.2	126			
Surr: 2-Fluorobiphenyl	72		100.0		72.4	37	114			
Surr: 2-Fluorophenol	140		200.0		71.2	23.4	98			
Surr: 4-Terphenyl-d14	64		100.0		64.3	41.3	116			
Surr: Nitrobenzene-d5	72		100.0		72.1	39.5	118			
Surr: Phenol-d5	130		200.0		66.7	20.9	95.9			

Sample ID **lcsd-4133**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **4133**	RunNo: **6007**
Prep Date: **10/5/2012**	Analysis Date: **10/5/2012**	SeqNo: **173073** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	64	10	100.0	0	64.1	38.2	99.4	4.96	20	
4-Chloro-3-methylphenol	170	10	200.0	0	83.6	35.5	108	15.4	20	
2-Chlorophenol	130	10	200.0	0	67.2	29.8	106	4.72	20	
1,4-Dichlorobenzene	65	10	100.0	0	64.5	32.6	91.5	1.32	20	
2,4-Dinitrotoluene	78	10	100.0	0	78.4	44.7	112	15.7	20	
N-Nitrosodi-n-propylamine	69	10	100.0	0	68.5	38.5	105	5.84	20	
4-Nitrophenol	110	10	200.0	0	53.4	11.6	73.1	15.1	20	
Pentachlorophenol	100	20	200.0	0	50.6	20.2	93	6.13	20	
Phenol	120	10	200.0	0	59.0	23	66.1	2.26	20	
Pyrene	67	10	100.0	0	66.7	40.1	101	8.21	20	
1,2,4-Trichlorobenzene	61	10	100.0	0	61.0	37.7	99.1	1.56	20	
Surr: 2,4,6-Tribromophenol	150		200.0		76.3	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	69		100.0		68.6	37	114	0	0	
Surr: 2-Fluorophenol	130		200.0		66.7	23.4	98	0	0	
Surr: 4-Terphenyl-d14	67		100.0		66.9	41.3	116	0	0	
Surr: Nitrobenzene-d5	72		100.0		72.1	39.5	118	0	0	
Surr: Phenol-d5	120		200.0		58.6	20.9	95.9	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4150**	SampType: **MBLK**	TestCode: **EPA Method 7471: Mercury**
Client ID: **PBS**	Batch ID: **4150**	RunNo: **6082**
Prep Date: **10/8/2012**	Analysis Date: **10/9/2012**	SeqNo: **175512** Units: **mg/kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID **LCS-4150**	SampType: **LCS**	TestCode: **EPA Method 7471: Mercury**
Client ID: **LCSS**	Batch ID: **4150**	RunNo: **6082**
Prep Date: **10/8/2012**	Analysis Date: **10/9/2012**	SeqNo: **175513** Units: **mg/kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.19	0.033	0.1667	0	117	80	120			

Sample ID **1210332-015CMS**	SampType: **MS**	TestCode: **EPA Method 7471: Mercury**
Client ID: **SWMU 1-5 (24-25')**	Batch ID: **4150**	RunNo: **6082**
Prep Date: **10/8/2012**	Analysis Date: **10/9/2012**	SeqNo: **175534** Units: **mg/kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1635	0	108	75	125			

Sample ID **1210332-015CMSD**	SampType: **MSD**	TestCode: **EPA Method 7471: Mercury**
Client ID: **SWMU 1-5 (24-25')**	Batch ID: **4150**	RunNo: **6082**
Prep Date: **10/8/2012**	Analysis Date: **10/9/2012**	SeqNo: **175535** Units: **mg/kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1662	0	108	75	125	1.95	20	

Qualifiers:

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- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4190**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **4190**	RunNo: **6121**
Prep Date: **10/9/2012**	Analysis Date: **10/10/2012**	SeqNo: **176356** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Iron	ND	1.0								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID **LCS-4190**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **4190**	RunNo: **6121**
Prep Date: **10/9/2012**	Analysis Date: **10/10/2012**	SeqNo: **176357** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	24	2.5	25.00	0	96.0	80	120			
Arsenic	25	2.5	25.00	0	99.3	80	120			
Beryllium	25	0.15	25.00	0	102	80	120			
Cadmium	25	0.10	25.00	0.04000	100	80	120			
Chromium	25	0.30	25.00	0	99.1	80	120			
Iron	25	1.0	25.00	0	99.9	80	120			
Lead	25	0.25	25.00	0	99.4	80	120			
Manganese	25	0.10	25.00	0.03400	98.1	80	120			
Nickel	24	0.50	25.00	0	95.7	80	120			
Selenium	23	2.5	25.00	0	91.4	80	120			
Silver	5.1	0.25	5.000	0	103	80	120			
Vanadium	25	2.5	25.00	0	101	80	120			
Zinc	25	2.5	25.00	1.304	95.8	80	120			

Sample ID **MB-4190**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **4190**	RunNo: **6163**
Prep Date: **10/9/2012**	Analysis Date: **10/11/2012**	SeqNo: **177646** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.10								
Cobalt	ND	0.30								

Qualifiers:

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	LCS-4190	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	LCSS	Batch ID:	4190	RunNo:	6163					
Prep Date:	10/9/2012	Analysis Date:	10/11/2012	SeqNo:	177647	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	26	0.10	25.00	0.06900	103	80	120			
Cobalt	26	0.30	25.00	0	103	80	120			

Sample ID	1210332-009CMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	SWMU 1-5 (27-28')	Batch ID:	4190	RunNo:	6163					
Prep Date:	10/9/2012	Analysis Date:	10/11/2012	SeqNo:	177670	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	25	0.75	24.45	1.059	97.2	75	125			
Cadmium	23	0.50	24.45	0	92.3	75	125			
Chromium	37	1.5	24.45	14.78	89.3	75	125			
Cobalt	29	1.5	24.45	7.765	86.7	75	125			
Lead	21	1.2	24.45	0	84.0	75	125			
Nickel	33	2.5	24.45	12.30	86.5	75	125			
Selenium	ND	12	24.45	0	0	75	125			S
Silver	4.5	1.2	4.889	0	92.6	75	125			
Vanadium	47	12	24.45	21.78	101	75	125			
Zinc	55	12	24.45	31.31	95.7	75	125			

Sample ID	1210332-009CMSD	SampType:	MSD	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	SWMU 1-5 (27-28')	Batch ID:	4190	RunNo:	6163					
Prep Date:	10/9/2012	Analysis Date:	10/11/2012	SeqNo:	177671	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	23	0.75	24.24	1.059	89.2	75	125	9.01	20	
Cadmium	21	0.50	24.24	0	85.2	75	125	8.90	20	
Chromium	35	1.5	24.24	14.78	81.6	75	125	5.77	20	
Cobalt	26	1.5	24.24	7.765	77.2	75	125	8.96	20	
Lead	20	1.2	24.24	0	82.6	75	125	2.50	20	
Nickel	31	2.5	24.24	12.30	76.9	75	125	7.78	20	
Selenium	ND	12	24.24	0	0	75	125	0	20	S
Silver	4.3	1.2	4.848	0	88.3	75	125	5.66	20	
Vanadium	44	12	24.24	21.78	91.5	75	125	5.71	20	
Zinc	50	12	24.24	31.31	76.7	75	125	9.19	20	

Sample ID	1210332-009CMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	SWMU 1-5 (27-28')	Batch ID:	4190	RunNo:	6192					
Prep Date:	10/9/2012	Analysis Date:	10/11/2012	SeqNo:	178373	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	12	24.45	0	0	75	125			S
Arsenic	23	12	24.45	0	94.4	75	125			

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210332**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210332-009CMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: Soil Metals**	
Client ID: **SWMU 1-5 (27-28')**	Batch ID: **4190**	RunNo: **6192**	
Prep Date: **10/9/2012**	Analysis Date: **10/11/2012**	SeqNo: **178374**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	12	24.24	0	0	75	125	0	20	S
Arsenic	24	12	24.24	0	100	75	125	5.14	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1210332

Received by/date: 10/05/12

Logged By: Lindsay Mangin — 10/5/2012 6:45:00 AM

Completed By: Lindsay Mangin — 10/5/2012 7:28:35 AM

Reviewed By: IO 10/05/12

Chain of Custody

1. Were seals intact? — Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? — Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? — FedEx

Log In

4. Coolers are present? (see 19. for cooler specific information) — Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? — Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C — Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? — Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? — Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? — ~~Yes~~ ☑ ~~No~~ ☐
10. Was preserved added to bottles? — ~~Yes~~ ☑ ~~No~~ ☐ NA ☐
-005E-ADDED 1mL HNO_3 FOR ACCEPTABLE pH - 10/05/12
11. VOA vials have zero headspace? — Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? — Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) — Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? — Yes ☑ No ☐
15. Is it clear what analyses were requested? — Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) — Yes ☑ No ☐

# of preserved bottles checked for pH: 2 2 (<2 or >12 unless noted)
Adjusted? 4
Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? — Yes ☐ No ☐ NA ☑

Person Notified: ____ Date: ____
By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: ____
Client Instructions: ____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE RPS
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.7

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210332	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/3/12	1315	SOIL	SWMU 1-4 (10-12')	2 VIALS	SOBI	-001										X						
			DUP	2 VIALS	MEOH											X						
				1 JAR	—											X	X	X	X			
	1345	SOIL	SWMU 1-4 (17-18')	2 VIALS	SOBI	-002										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1400	SOIL	SWMU 1-4 (23-24')	2 VIALS	SOBI	-003										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
10/3/12	—	WATER	TRIP BLANK	3 VOAS	HCL	-004										X						

Remarks:

Date	Time	Relinquished by:	Received by:	Date	Time
10/4/12	0717			10/05/12	0645
Date:	Time:	Relinquished by:	Received by:	Date	Time

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

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: ☒ Yes ☐ No
Sample Temperature: 2 °C

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210357	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/3/12	0930	GW	SWMU 1-3 GW	6 VOA	HCL/NEAT	-005										X						
				1 AMBER	—												X					
				PLASTIC	—														X			
				PLASTIC	HNO_3														XX			
				PLASTIC	NaOH																	
	1300	SOIL	SWMU 1-4 (8-10)	2 VIALS	SOBI	-006										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1315	SOIL	SWMU 1-4 (10-12)	2 VIALS	SOBI	-007										X						
				2 VIALS	MEOH											X						
				1 JAR	—											X	X	X	X			

Date: 10/4/12 Time: 0717 Relinquished by: [signature]
Date: Time: Relinquished by:

Received by: [signature] Date: 10/05/12 Time: 0645
Received by: Date: Time:

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: [ ] Yes [ ] No
Sample Temperature: 2 °C

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1208332	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/3/12	1820	SOIL	SWMU 1-5 (26-27')	2 VIALS	SOBI	-008										X						
				2 VIALS	MeOH											X						
				1 JAR	—											X	X	X	X			
	1830		SWMU 1-5 (27-28')	2 VIALS	SOBI	-009										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
10/3/12	1844	WATER	FB100312	6 VOA	HCL/NEAT	-010										X						
				1 AMBER	—												X					
				1 PLASTIC	—														X			
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NaOH														X			
10/3/12	—	—	MEOH BLANK 100312	2 VIALS	MEOH	-011										X						

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
10/4/12	0709			10/05/12	0645	
Date:	Time:	Relinquished by:	Received by:	Date	Time	

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

Chain-of-Custody Record

Client: WESTERN REFINING SW INC
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No.1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: ☐ No.
Sample Temperature: 2.7

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210532	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) +TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/3/12	1730	SOIL	SWMU 1-5(10-12')	2 VIALS	SOBI	-012										X						
				2 VIALS	MeOH											X						
	↓		↓	3 JARS	—											X	X	X	X			
	1745		SWMU 1-5(14-16')	2 VIALS	SOBI	-013										X						
	↓		↓	2 VIALS	MeOH											X						
	↓		↓	3 JARS	—											X	X	X	X			
	1800		SWMU 1-5(16-18')	2 VIALS	SOBI	-014										X						
	↓		↓	2 VIALS	MeOH											X						
	↓		↓	3 JARS	—											X	X	X	X			
	1810		SWMU 1-5(24-25')	2 VIALS	SOBI	-015										X						
	↓		↓	2 VIALS	MeOH											X						
	↓		↓	2 JARS	—											X	X	X	X			

Date	Time	Relinquished by:	Received by:	Date	Time
10/4/12	0709			10/05/12	0645
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

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

November 14, 2012

Scott Crouch

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.1 OrderNo.: 1210372

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 28 sample(s) on 10/6/2012 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued October 29, 2012.

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1210372**
Date Reported: **11/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-1 (2-4')
Collection Date: 10/5/2012 2:10:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	4700	1000		mg/Kg	100	10/9/2012 12:21:25 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	10/9/2012 12:21:25 PM
Surr: DNOP	0	77.6-140	S	%REC	100	10/9/2012 12:21:25 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	410	250		mg/Kg	50	10/10/2012 4:13:23 PM
Surr: BFB	159	84-116	S	%REC	50	10/10/2012 4:13:23 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	1.4	0.33		mg/kg	10	10/11/2012 3:46:24 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 2:29:04 PM
Arsenic	ND	12		mg/Kg	5	10/11/2012 2:29:04 PM
Barium	450	1.0		mg/Kg	10	10/11/2012 3:14:12 PM
Beryllium	ND	0.75		mg/Kg	5	10/11/2012 2:29:04 PM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 2:29:04 PM
Chromium	400	3.0		mg/Kg	10	10/11/2012 3:14:12 PM
Cobalt	8.1	1.5		mg/Kg	5	10/11/2012 2:29:04 PM
Iron	16000	500		mg/Kg	500	10/11/2012 3:19:11 PM
Lead	80	1.2		mg/Kg	5	10/11/2012 2:29:04 PM
Manganese	480	1.0		mg/Kg	10	10/11/2012 3:14:12 PM
Nickel	15	2.5		mg/Kg	5	10/11/2012 2:29:04 PM
Selenium	ND	12		mg/Kg	5	10/11/2012 2:29:04 PM
Silver	ND	1.2		mg/Kg	5	10/11/2012 2:29:04 PM
Vanadium	20	12		mg/Kg	5	10/11/2012 2:29:04 PM
Zinc	720	120		mg/Kg	50	10/11/2012 3:16:43 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Acenaphthylene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Aniline	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Anthracene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Azobenzene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/10/2012 2:41:03 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM

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RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-1 (2-4')
Collection Date: 10/5/2012 2:10:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/10/2012 2:41:03 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Carbazole	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/10/2012 2:41:03 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/10/2012 2:41:03 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	10/10/2012 2:41:03 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Chrysene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/10/2012 2:41:03 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	10/10/2012 2:41:03 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Dibenzofuran	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	10/10/2012 2:41:03 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/10/2012 2:41:03 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/10/2012 2:41:03 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/10/2012 2:41:03 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/10/2012 2:41:03 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/10/2012 2:41:03 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/10/2012 2:41:03 PM
Fluoranthene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Fluorene	3.7	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Hexachloroethane	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Isophorone	ND	2.5		mg/Kg	1	10/10/2012 2:41:03 PM
1-Methylnaphthalene	43	10		mg/Kg	10	10/10/2012 3:12:23 PM
2-Methylnaphthalene	55	10		mg/Kg	10	10/10/2012 3:12:23 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/10/2012 2:41:03 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Naphthalene	7.9	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM

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Project: SWMU NO.1
Lab ID: 1210372-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-1 (2-4')
Collection Date: 10/5/2012 2:10:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	10/10/2012 2:41:03 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/10/2012 2:41:03 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	10/10/2012 2:41:03 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/10/2012 2:41:03 PM
Phenanthrene	11	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Phenol	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Pyrene	1.5	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Pyridine	ND	2.5		mg/Kg	1	10/10/2012 2:41:03 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/10/2012 2:41:03 PM
Surr: 2,4,6-Tribromophenol	39.2	21.3-145		%REC	1	10/10/2012 2:41:03 PM
Surr: 2-Fluorobiphenyl	65.5	20-131		%REC	1	10/10/2012 2:41:03 PM
Surr: 2-Fluorophenol	76.1	11.9-130		%REC	1	10/10/2012 2:41:03 PM
Surr: 4-Terphenyl-d14	80.1	25.1-149		%REC	1	10/10/2012 2:41:03 PM
Surr: Nitrobenzene-d5	0	25.6-137	S	%REC	1	10/10/2012 2:41:03 PM
Surr: Phenol-d5	74.1	20.3-132		%REC	1	10/10/2012 2:41:03 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	3.2	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
Toluene	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
Ethylbenzene	5.8	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
Methyl tert-butyl ether (MTBE)	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
1,2,4-Trimethylbenzene	17	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
1,3,5-Trimethylbenzene	5.8	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
1,2-Dichloroethane (EDC)	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
1,2-Dibromoethane (EDB)	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
Naphthalene	13	5.0		mg/Kg	50	10/15/2012 11:08:23 PM
1-Methylnaphthalene	35	10		mg/Kg	50	10/15/2012 11:08:23 PM
2-Methylnaphthalene	48	10		mg/Kg	50	10/15/2012 11:08:23 PM
Acetone	ND	38		mg/Kg	50	10/15/2012 11:08:23 PM
Bromobenzene	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
Bromodichloromethane	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
Bromoform	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
Bromomethane	ND	7.5		mg/Kg	50	10/15/2012 11:08:23 PM
2-Butanone	ND	25		mg/Kg	50	10/15/2012 11:08:23 PM
Carbon disulfide	ND	25		mg/Kg	50	10/15/2012 11:08:23 PM
Carbon tetrachloride	ND	5.0		mg/Kg	50	10/15/2012 11:08:23 PM
Chlorobenzene	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
Chloroethane	ND	5.0		mg/Kg	50	10/15/2012 11:08:23 PM

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-1 (2-4')
Collection Date: 10/5/2012 2:10:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Chloroform	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
Chloromethane	ND	7.5		mg/Kg	50	10/15/2012 11:08:23 PM
2-Chlorotoluene	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
4-Chlorotoluene	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
cis-1,2-DCE	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
cis-1,3-Dichloropropene	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
1,2-Dibromo-3-chloropropane	ND	5.0		mg/Kg	50	10/15/2012 11:08:23 PM
Dibromochloromethane	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
Dibromomethane	ND	5.0		mg/Kg	50	10/15/2012 11:08:23 PM
1,2-Dichlorobenzene	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
1,3-Dichlorobenzene	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
1,4-Dichlorobenzene	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
Dichlorodifluoromethane	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
1,1-Dichloroethane	ND	5.0		mg/Kg	50	10/15/2012 11:08:23 PM
1,1-Dichloroethene	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
1,2-Dichloropropane	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
1,3-Dichloropropane	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
2,2-Dichloropropane	ND	5.0		mg/Kg	50	10/15/2012 11:08:23 PM
1,1-Dichloropropene	ND	5.0		mg/Kg	50	10/15/2012 11:08:23 PM
Hexachlorobutadiene	ND	5.0		mg/Kg	50	10/15/2012 11:08:23 PM
2-Hexanone	ND	25		mg/Kg	50	10/15/2012 11:08:23 PM
Isopropylbenzene	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
4-Isopropyltoluene	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
4-Methyl-2-pentanone	ND	25		mg/Kg	50	10/15/2012 11:08:23 PM
Methylene chloride	ND	7.5		mg/Kg	50	10/15/2012 11:08:23 PM
n-Butylbenzene	ND	7.5		mg/Kg	50	10/15/2012 11:08:23 PM
n-Propylbenzene	2.8	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
sec-Butylbenzene	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
Styrene	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
tert-Butylbenzene	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
1,1,1,2-Tetrachloroethane	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
1,1,2,2-Tetrachloroethane	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
Tetrachloroethene (PCE)	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
trans-1,2-DCE	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
trans-1,3-Dichloropropene	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
1,2,3-Trichlorobenzene	ND	5.0		mg/Kg	50	10/15/2012 11:08:23 PM
1,2,4-Trichlorobenzene	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
1,1,1-Trichloroethane	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
1,1,2-Trichloroethane	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
Trichloroethene (TCE)	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
Trichlorofluoromethane	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
1,2,3-Trichloropropane	ND	5.0		mg/Kg	50	10/15/2012 11:08:23 PM

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EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Vinyl chloride	ND	2.5		mg/Kg	50	10/15/2012 11:08:23 PM
Xylenes, Total	24	5.0		mg/Kg	50	10/15/2012 11:08:23 PM
Surr: 1,2-Dichloroethane-d4	98.3	70-130		%REC	50	10/15/2012 11:08:23 PM
Surr: 4-Bromofluorobenzene	80.1	70-130		%REC	50	10/15/2012 11:08:23 PM
Surr: Dibromofluoromethane	91.8	70-130		%REC	50	10/15/2012 11:08:23 PM
Surr: Toluene-d8	98.8	70-130		%REC	50	10/15/2012 11:08:23 PM

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Lab Order **1210372**
Date Reported: **11/14/2012**

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-1 (10-12')
Collection Date: 10/5/2012 2:15:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	820	100		mg/Kg	10	10/9/2012 11:59:39 AM
Motor Oil Range Organics (MRO)	ND	510		mg/Kg	10	10/9/2012 11:59:39 AM
Surr: DNOP	0	77.6-140	S	%REC	10	10/9/2012 11:59:39 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	10/10/2012 5:10:59 PM
Surr: BFB	124	84-116	S	%REC	5	10/10/2012 5:10:59 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/11/2012 3:19:49 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 2:47:13 PM
Arsenic	ND	12		mg/Kg	5	10/11/2012 2:47:13 PM
Barium	300	1.0		mg/Kg	10	10/11/2012 3:21:49 PM
Beryllium	1.2	0.75		mg/Kg	5	10/11/2012 2:47:13 PM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 2:47:13 PM
Chromium	16	1.5		mg/Kg	5	10/11/2012 2:47:13 PM
Cobalt	7.5	1.5		mg/Kg	5	10/11/2012 2:47:13 PM
Iron	23000	500		mg/Kg	500	10/11/2012 3:29:57 PM
Lead	3.3	1.2		mg/Kg	5	10/11/2012 2:47:13 PM
Manganese	290	1.0		mg/Kg	10	10/11/2012 3:21:49 PM
Nickel	15	2.5		mg/Kg	5	10/11/2012 2:47:13 PM
Selenium	ND	12		mg/Kg	5	10/11/2012 2:47:13 PM
Silver	ND	1.2		mg/Kg	5	10/11/2012 2:47:13 PM
Vanadium	25	12		mg/Kg	5	10/11/2012 2:47:13 PM
Zinc	29	12		mg/Kg	5	10/11/2012 2:47:13 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Aniline	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Anthracene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Azobenzene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/10/2012 3:05:05 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-1 (10-12')
Collection Date: 10/5/2012 2:15:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/10/2012 3:05:05 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Carbazole	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 3:05:05 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/10/2012 3:05:05 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/10/2012 3:05:05 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Chrysene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/10/2012 3:05:05 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/10/2012 3:05:05 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/10/2012 3:05:05 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/10/2012 3:05:05 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/10/2012 3:05:05 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 3:05:05 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/10/2012 3:05:05 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 3:05:05 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 3:05:05 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Fluorene	0.68	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Isophorone	ND	0.50		mg/Kg	1	10/10/2012 3:05:05 AM
1-Methylnaphthalene	7.9	2.0		mg/Kg	10	10/10/2012 1:10:56 PM
2-Methylnaphthalene	14	2.0		mg/Kg	10	10/10/2012 1:10:56 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/10/2012 3:05:05 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Naphthalene	1.1	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-1 (10-12')
Collection Date: 10/5/2012 2:15:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/10/2012 3:05:05 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/10/2012 3:05:05 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/10/2012 3:05:05 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/10/2012 3:05:05 AM
Phenanthrene	1.5	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Phenol	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Pyrene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Pyridine	ND	0.50		mg/Kg	1	10/10/2012 3:05:05 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 3:05:05 AM
Surr: 2,4,6-Tribromophenol	66.8	21.3-145		%REC	1	10/10/2012 3:05:05 AM
Surr: 2-Fluorobiphenyl	80.4	20-131		%REC	1	10/10/2012 3:05:05 AM
Surr: 2-Fluorophenol	92.8	11.9-130		%REC	1	10/10/2012 3:05:05 AM
Surr: 4-Terphenyl-d14	79.4	25.1-149		%REC	1	10/10/2012 3:05:05 AM
Surr: Nitrobenzene-d5	94.3	25.6-137		%REC	1	10/10/2012 3:05:05 AM
Surr: Phenol-d5	97.2	20.3-132		%REC	1	10/10/2012 3:05:05 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
Toluene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
Ethylbenzene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
1,2,4-Trimethylbenzene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
Naphthalene	1.3	1.0		mg/Kg	10	10/15/2012 11:36:31 PM
1-Methylnaphthalene	6.4	2.0		mg/Kg	10	10/15/2012 11:36:31 PM
2-Methylnaphthalene	13	2.0		mg/Kg	10	10/15/2012 11:36:31 PM
Acetone	ND	7.5		mg/Kg	10	10/15/2012 11:36:31 PM
Bromobenzene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
Bromoform	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
Bromomethane	ND	1.5		mg/Kg	10	10/15/2012 11:36:31 PM
2-Butanone	ND	5.0		mg/Kg	10	10/15/2012 11:36:31 PM
Carbon disulfide	ND	5.0		mg/Kg	10	10/15/2012 11:36:31 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	10/15/2012 11:36:31 PM
Chlorobenzene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
Chloroethane	ND	1.0		mg/Kg	10	10/15/2012 11:36:31 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-1 (10-12')
Collection Date: 10/5/2012 2:15:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Chloroform	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
Chloromethane	ND	1.5		mg/Kg	10	10/15/2012 11:36:31 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	10/15/2012 11:36:31 PM
Dibromochloromethane	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
Dibromomethane	ND	1.0		mg/Kg	10	10/15/2012 11:36:31 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	10/15/2012 11:36:31 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	10/15/2012 11:36:31 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	10/15/2012 11:36:31 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	10/15/2012 11:36:31 PM
2-Hexanone	ND	5.0		mg/Kg	10	10/15/2012 11:36:31 PM
Isopropylbenzene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	10/15/2012 11:36:31 PM
Methylene chloride	ND	1.5		mg/Kg	10	10/15/2012 11:36:31 PM
n-Butylbenzene	ND	1.5		mg/Kg	10	10/15/2012 11:36:31 PM
n-Propylbenzene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
sec-Butylbenzene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
Styrene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	10/15/2012 11:36:31 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	10/15/2012 11:36:31 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-1 (10-12')
Collection Date: 10/5/2012 2:15:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Vinyl chloride	ND	0.50		mg/Kg	10	10/15/2012 11:36:31 PM
Xylenes, Total	ND	1.0		mg/Kg	10	10/15/2012 11:36:31 PM
Surr: 1,2-Dichloroethane-d4	94.0	70-130		%REC	10	10/15/2012 11:36:31 PM
Surr: 4-Bromofluorobenzene	90.2	70-130		%REC	10	10/15/2012 11:36:31 PM
Surr: Dibromofluoromethane	91.4	70-130		%REC	10	10/15/2012 11:36:31 PM
Surr: Toluene-d8	95.0	70-130		%REC	10	10/15/2012 11:36:31 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-1 (13-14')
Collection Date: 10/5/2012 2:30:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	55	10		mg/Kg	1	10/9/2012 9:16:28 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/9/2012 9:16:28 AM
Surr: DNOP	99.7	77.6-140		%REC	1	10/9/2012 9:16:28 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/10/2012 6:08:27 PM
Surr: BFB	113	84-116		%REC	1	10/10/2012 6:08:27 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/11/2012 3:21:36 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	25		mg/Kg	10	10/11/2012 3:32:36 PM
Arsenic	ND	25		mg/Kg	10	10/11/2012 3:32:36 PM
Barium	630	5.0		mg/Kg	50	10/11/2012 3:39:36 PM
Beryllium	ND	1.5		mg/Kg	10	10/11/2012 3:32:36 PM
Cadmium	ND	1.0		mg/Kg	10	10/11/2012 3:32:36 PM
Chromium	6.8	3.0		mg/Kg	10	10/11/2012 3:32:36 PM
Cobalt	8.0	3.0		mg/Kg	10	10/11/2012 3:32:36 PM
Iron	8100	500		mg/Kg	500	10/11/2012 3:41:59 PM
Lead	ND	2.5		mg/Kg	10	10/11/2012 3:32:36 PM
Manganese	2800	50		mg/Kg	500	10/11/2012 3:41:59 PM
Nickel	8.3	5.0		mg/Kg	10	10/11/2012 3:32:36 PM
Selenium	ND	25		mg/Kg	10	10/11/2012 3:32:36 PM
Silver	ND	2.5		mg/Kg	10	10/11/2012 3:32:36 PM
Vanadium	30	25		mg/Kg	10	10/11/2012 3:32:36 PM
Zinc	ND	25		mg/Kg	10	10/11/2012 3:32:36 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Aniline	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Anthracene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Azobenzene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/10/2012 3:34:07 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-1 (13-14')
Collection Date: 10/5/2012 2:30:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/10/2012 3:34:07 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Carbazole	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 3:34:07 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/10/2012 3:34:07 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/10/2012 3:34:07 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Chrysene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/10/2012 3:34:07 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/10/2012 3:34:07 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/10/2012 3:34:07 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/10/2012 3:34:07 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/10/2012 3:34:07 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 3:34:07 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/10/2012 3:34:07 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 3:34:07 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 3:34:07 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Fluorene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Isophorone	ND	0.50		mg/Kg	1	10/10/2012 3:34:07 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/10/2012 3:34:07 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Naphthalene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-1 (13-14')
Collection Date: 10/5/2012 2:30:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/10/2012 3:34:07 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/10/2012 3:34:07 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/10/2012 3:34:07 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/10/2012 3:34:07 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Phenol	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Pyrene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Pyridine	ND	0.50		mg/Kg	1	10/10/2012 3:34:07 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 3:34:07 AM
Surr: 2,4,6-Tribromophenol	82.4	21.3-145		%REC	1	10/10/2012 3:34:07 AM
Surr: 2-Fluorobiphenyl	81.7	20-131		%REC	1	10/10/2012 3:34:07 AM
Surr: 2-Fluorophenol	79.4	11.9-130		%REC	1	10/10/2012 3:34:07 AM
Surr: 4-Terphenyl-d14	77.5	25.1-149		%REC	1	10/10/2012 3:34:07 AM
Surr: Nitrobenzene-d5	83.4	25.6-137		%REC	1	10/10/2012 3:34:07 AM
Surr: Phenol-d5	87.9	20.3-132		%REC	1	10/10/2012 3:34:07 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
Toluene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
Ethylbenzene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
Naphthalene	ND	0.10		mg/Kg	1	10/16/2012 12:32:33 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/16/2012 12:32:33 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/16/2012 12:32:33 AM
Acetone	ND	0.75		mg/Kg	1	10/16/2012 12:32:33 AM
Bromobenzene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
Bromodichloromethane	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
Bromoform	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
Bromomethane	ND	0.15		mg/Kg	1	10/16/2012 12:32:33 AM
2-Butanone	ND	0.50		mg/Kg	1	10/16/2012 12:32:33 AM
Carbon disulfide	ND	0.50		mg/Kg	1	10/16/2012 12:32:33 AM
Carbon tetrachloride	ND	0.10		mg/Kg	1	10/16/2012 12:32:33 AM
Chlorobenzene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
Chloroethane	ND	0.10		mg/Kg	1	10/16/2012 12:32:33 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-1 (13-14')
Collection Date: 10/5/2012 2:30:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Chloroform	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
Chloromethane	ND	0.15		mg/Kg	1	10/16/2012 12:32:33 AM
2-Chlorotoluene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
4-Chlorotoluene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
cis-1,2-DCE	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	10/16/2012 12:32:33 AM
Dibromochloromethane	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
Dibromomethane	ND	0.10		mg/Kg	1	10/16/2012 12:32:33 AM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	10/16/2012 12:32:33 AM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	10/16/2012 12:32:33 AM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	10/16/2012 12:32:33 AM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	10/16/2012 12:32:33 AM
2-Hexanone	ND	0.50		mg/Kg	1	10/16/2012 12:32:33 AM
Isopropylbenzene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	10/16/2012 12:32:33 AM
Methylene chloride	ND	0.15		mg/Kg	1	10/16/2012 12:32:33 AM
n-Butylbenzene	ND	0.15		mg/Kg	1	10/16/2012 12:32:33 AM
n-Propylbenzene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
sec-Butylbenzene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
Styrene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
tert-Butylbenzene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
trans-1,2-DCE	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	10/16/2012 12:32:33 AM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	10/16/2012 12:32:33 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-1 (13-14')
Collection Date: 10/5/2012 2:30:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Vinyl chloride	ND	0.050		mg/Kg	1	10/16/2012 12:32:33 AM
Xylenes, Total	ND	0.10		mg/Kg	1	10/16/2012 12:32:33 AM
Surr: 1,2-Dichloroethane-d4	94.9	70-130		%REC	1	10/16/2012 12:32:33 AM
Surr: 4-Bromofluorobenzene	81.8	70-130		%REC	1	10/16/2012 12:32:33 AM
Surr: Dibromofluoromethane	92.1	70-130		%REC	1	10/16/2012 12:32:33 AM
Surr: Toluene-d8	99.7	70-130		%REC	1	10/16/2012 12:32:33 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (16-18') DUP
Collection Date: 10/5/2012 11:10:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/9/2012 9:38:07 AM
Motor Oil Range Organics (MRO)	ND	52		mg/Kg	1	10/9/2012 9:38:07 AM
Surr: DNOP	91.2	77.6-140		%REC	1	10/9/2012 9:38:07 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/8/2012 8:34:40 PM
Surr: BFB	103	84-116		%REC	1	10/8/2012 8:34:40 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/11/2012 3:23:22 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 3:44:52 PM
Arsenic	ND	12		mg/Kg	5	10/11/2012 3:44:52 PM
Barium	530	5.0		mg/Kg	50	10/11/2012 3:47:18 PM
Beryllium	ND	0.75		mg/Kg	5	10/11/2012 3:44:52 PM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 3:44:52 PM
Chromium	6.6	1.5		mg/Kg	5	10/11/2012 3:44:52 PM
Cobalt	3.5	1.5		mg/Kg	5	10/11/2012 3:44:52 PM
Iron	9100	500		mg/Kg	500	10/11/2012 3:49:43 PM
Lead	2.5	1.2		mg/Kg	5	10/11/2012 3:44:52 PM
Manganese	660	5.0		mg/Kg	50	10/11/2012 3:47:18 PM
Nickel	4.4	2.5		mg/Kg	5	10/11/2012 3:44:52 PM
Selenium	ND	12		mg/Kg	5	10/11/2012 3:44:52 PM
Silver	ND	1.2		mg/Kg	5	10/11/2012 3:44:52 PM
Vanadium	23	12		mg/Kg	5	10/11/2012 3:44:52 PM
Zinc	ND	12		mg/Kg	5	10/11/2012 3:44:52 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Aniline	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Anthracene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Azobenzene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/10/2012 4:03:08 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (16-18') DUP
Collection Date: 10/5/2012 11:10:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/10/2012 4:03:08 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Carbazole	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 4:03:08 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/10/2012 4:03:08 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/10/2012 4:03:08 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Chrysene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/10/2012 4:03:08 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/10/2012 4:03:08 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/10/2012 4:03:08 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/10/2012 4:03:08 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/10/2012 4:03:08 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 4:03:08 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/10/2012 4:03:08 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 4:03:08 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 4:03:08 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Fluorene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Isophorone	ND	0.50		mg/Kg	1	10/10/2012 4:03:08 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/10/2012 4:03:08 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Naphthalene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (16-18') DUP
Collection Date: 10/5/2012 11:10:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/10/2012 4:03:08 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/10/2012 4:03:08 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/10/2012 4:03:08 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/10/2012 4:03:08 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Phenol	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Pyrene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Pyridine	ND	0.50		mg/Kg	1	10/10/2012 4:03:08 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 4:03:08 AM
Surr: 2,4,6-Tribromophenol	70.7	21.3-145		%REC	1	10/10/2012 4:03:08 AM
Surr: 2-Fluorobiphenyl	74.1	20-131		%REC	1	10/10/2012 4:03:08 AM
Surr: 2-Fluorophenol	74.7	11.9-130		%REC	1	10/10/2012 4:03:08 AM
Surr: 4-Terphenyl-d14	66.8	25.1-149		%REC	1	10/10/2012 4:03:08 AM
Surr: Nitrobenzene-d5	74.1	25.6-137		%REC	1	10/10/2012 4:03:08 AM
Surr: Phenol-d5	80.3	20.3-132		%REC	1	10/10/2012 4:03:08 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00148	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Toluene	0.00121	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Ethylbenzene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Xylenes, Total	ND	0.00212		mg/Kg	1	10/9/2012 10:42:46 PM
Methyl tert-butyl ether (MTBE)	0.0240	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,2,4-Trimethylbenzene	0.00109	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,3,5-Trimethylbenzene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,2-Dichloroethane (EDC)	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,2-Dibromoethane (EDB)	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Naphthalene	ND	0.00212		mg/Kg	1	10/9/2012 10:42:46 PM
1-Methylnaphthalene	ND	0.00424		mg/Kg	1	10/9/2012 10:42:46 PM
2-Methylnaphthalene	ND	0.00424		mg/Kg	1	10/9/2012 10:42:46 PM
Acetone	0.0370	0.0106		mg/Kg	1	10/9/2012 10:42:46 PM
Bromobenzene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Bromodichloromethane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Bromoform	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Bromomethane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
2-Butanone	ND	0.0106		mg/Kg	1	10/9/2012 10:42:46 PM
Carbon tetrachloride	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Chlorobenzene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Chloroethane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (16-18') DUP
Collection Date: 10/5/2012 11:10:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Chloromethane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
2-Chlorotoluene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Carbon disulfide	ND	0.0106		mg/Kg	1	10/9/2012 10:42:46 PM
4-Chlorotoluene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
cis-1,2-DCE	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
cis-1,3-Dichloropropene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,2-Dibromo-3-chloropropane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Dibromochloromethane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Dibromomethane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,2-Dichlorobenzene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,3-Dichlorobenzene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,4-Dichlorobenzene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Dichlorodifluoromethane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,1-Dichloroethane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,1-Dichloroethene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,2-Dichloropropane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,3-Dichloropropane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
2,2-Dichloropropane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,1-Dichloropropene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Hexachlorobutadiene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Isopropylbenzene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
4-Isopropyltoluene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Methylene chloride	ND	0.00318		mg/Kg	1	10/9/2012 10:42:46 PM
n-Butylbenzene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
2-Hexanone	ND	0.0106		mg/Kg	1	10/9/2012 10:42:46 PM
n-Propylbenzene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
sec-Butylbenzene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Styrene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
4-Methyl-2-pentanone	ND	0.0106		mg/Kg	1	10/9/2012 10:42:46 PM
tert-Butylbenzene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,1,1,2-Tetrachloroethane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,1,2,2-Tetrachloroethane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Tetrachloroethene (PCE)	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
trans-1,2-DCE	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
trans-1,3-Dichloropropene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,2,3-Trichlorobenzene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,2,4-Trichlorobenzene	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,1,1-Trichloroethane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
1,1,2-Trichloroethane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Trichloroethene (TCE)	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Trichlorofluoromethane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (16-18') DUP
Collection Date: 10/5/2012 11:10:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Vinyl chloride	ND	0.00106		mg/Kg	1	10/9/2012 10:42:46 PM
Surr: 1,2-Dichloroethane-d4	97.6	70-130		%REC	1	10/9/2012 10:42:46 PM
Surr: 4-Bromofluorobenzene	95.0	70-130		%REC	1	10/9/2012 10:42:46 PM
Surr: Dibromofluoromethane	108	70-130		%REC	1	10/9/2012 10:42:46 PM
Surr: Toluene-d8	95.8	70-130		%REC	1	10/9/2012 10:42:46 PM

Qualifiers:

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

Analytical Report
Lab Order **1210372**
Date Reported: **11/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (19-20')
Collection Date: 10/5/2012 11:25:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/9/2012 9:59:40 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/9/2012 9:59:40 AM
Surr: DNOP	95.4	77.6-140		%REC	1	10/9/2012 9:59:40 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/8/2012 11:27:22 PM
Surr: BFB	100	84-116		%REC	1	10/8/2012 11:27:22 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/11/2012 3:25:08 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 3:52:34 PM
Arsenic	ND	12		mg/Kg	5	10/11/2012 3:52:34 PM
Barium	300	5.0		mg/Kg	50	10/11/2012 3:55:01 PM
Beryllium	0.95	0.75		mg/Kg	5	10/11/2012 3:52:34 PM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 3:52:34 PM
Chromium	14	1.5		mg/Kg	5	10/11/2012 3:52:34 PM
Cobalt	8.2	1.5		mg/Kg	5	10/11/2012 3:52:34 PM
Iron	19000	500		mg/Kg	500	10/11/2012 3:57:26 PM
Lead	ND	1.2		mg/Kg	5	10/11/2012 3:52:34 PM
Manganese	300	5.0		mg/Kg	50	10/11/2012 3:55:01 PM
Nickel	12	2.5		mg/Kg	5	10/11/2012 3:52:34 PM
Selenium	ND	12		mg/Kg	5	10/11/2012 3:52:34 PM
Silver	ND	1.2		mg/Kg	5	10/11/2012 3:52:34 PM
Vanadium	26	12		mg/Kg	5	10/11/2012 3:52:34 PM
Zinc	29	12		mg/Kg	5	10/11/2012 3:52:34 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Aniline	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Anthracene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Azobenzene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/10/2012 4:32:12 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (19-20')
Collection Date: 10/5/2012 11:25:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/10/2012 4:32:12 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Carbazole	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 4:32:12 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/10/2012 4:32:12 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/10/2012 4:32:12 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Chrysene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/10/2012 4:32:12 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/10/2012 4:32:12 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/10/2012 4:32:12 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/10/2012 4:32:12 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/10/2012 4:32:12 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 4:32:12 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/10/2012 4:32:12 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 4:32:12 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 4:32:12 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Fluorene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Isophorone	ND	0.50		mg/Kg	1	10/10/2012 4:32:12 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/10/2012 4:32:12 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Naphthalene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (19-20')
Collection Date: 10/5/2012 11:25:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/10/2012 4:32:12 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/10/2012 4:32:12 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/10/2012 4:32:12 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/10/2012 4:32:12 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Phenol	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Pyrene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Pyridine	ND	0.50		mg/Kg	1	10/10/2012 4:32:12 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 4:32:12 AM
Surr: 2,4,6-Tribromophenol	62.5	21.3-145		%REC	1	10/10/2012 4:32:12 AM
Surr: 2-Fluorobiphenyl	55.9	20-131		%REC	1	10/10/2012 4:32:12 AM
Surr: 2-Fluorophenol	55.9	11.9-130		%REC	1	10/10/2012 4:32:12 AM
Surr: 4-Terphenyl-d14	54.9	25.1-149		%REC	1	10/10/2012 4:32:12 AM
Surr: Nitrobenzene-d5	56.1	25.6-137		%REC	1	10/10/2012 4:32:12 AM
Surr: Phenol-d5	60.2	20.3-132		%REC	1	10/10/2012 4:32:12 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Toluene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Ethylbenzene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Xylenes, Total	ND	0.00218		mg/Kg	1	10/9/2012 8:39:34 PM
Methyl tert-butyl ether (MTBE)	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,2,4-Trimethylbenzene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,3,5-Trimethylbenzene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,2-Dichloroethane (EDC)	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,2-Dibromoethane (EDB)	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Naphthalene	ND	0.00218		mg/Kg	1	10/9/2012 8:39:34 PM
1-Methylnaphthalene	ND	0.00435		mg/Kg	1	10/9/2012 8:39:34 PM
2-Methylnaphthalene	ND	0.00435		mg/Kg	1	10/9/2012 8:39:34 PM
Acetone	0.0272	0.0109		mg/Kg	1	10/9/2012 8:39:34 PM
Bromobenzene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Bromodichloromethane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Bromoform	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Bromomethane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
2-Butanone	ND	0.0109		mg/Kg	1	10/9/2012 8:39:34 PM
Carbon tetrachloride	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Chlorobenzene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Chloroethane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (19-20')
Collection Date: 10/5/2012 11:25:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Chloromethane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
2-Chlorotoluene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Carbon disulfide	ND	0.0109		mg/Kg	1	10/9/2012 8:39:34 PM
4-Chlorotoluene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
cis-1,2-DCE	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
cis-1,3-Dichloropropene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,2-Dibromo-3-chloropropane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Dibromochloromethane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Dibromomethane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,2-Dichlorobenzene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,3-Dichlorobenzene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,4-Dichlorobenzene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Dichlorodifluoromethane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,1-Dichloroethane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,1-Dichloroethene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,2-Dichloropropane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,3-Dichloropropane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
2,2-Dichloropropane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,1-Dichloropropene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Hexachlorobutadiene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Isopropylbenzene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
4-Isopropyltoluene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Methylene chloride	ND	0.00326		mg/Kg	1	10/9/2012 8:39:34 PM
n-Butylbenzene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
2-Hexanone	ND	0.0109		mg/Kg	1	10/9/2012 8:39:34 PM
n-Propylbenzene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
sec-Butylbenzene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Styrene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
4-Methyl-2-pentanone	ND	0.0109		mg/Kg	1	10/9/2012 8:39:34 PM
tert-Butylbenzene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,1,1,2-Tetrachloroethane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,1,2,2-Tetrachloroethane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Tetrachloroethene (PCE)	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
trans-1,2-DCE	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
trans-1,3-Dichloropropene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,2,3-Trichlorobenzene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,2,4-Trichlorobenzene	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,1,1-Trichloroethane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
1,1,2-Trichloroethane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Trichloroethene (TCE)	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Trichlorofluoromethane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-8 (19-20')
Project: SWMU NO.1
Collection Date: 10/5/2012 11:25:00 AM
Lab ID: 1210372-005 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Vinyl chloride	ND	0.00109		mg/Kg	1	10/9/2012 8:39:34 PM
Surr: 1,2-Dichloroethane-d4	89.0	70-130		%REC	1	10/9/2012 8:39:34 PM
Surr: 4-Bromofluorobenzene	115	70-130		%REC	1	10/9/2012 8:39:34 PM
Surr: Dibromofluoromethane	99.5	70-130		%REC	1	10/9/2012 8:39:34 PM
Surr: Toluene-d8	88.4	70-130		%REC	1	10/9/2012 8:39:34 PM

Qualifiers:

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

Analytical Report
Lab Order **1210372**
Date Reported: **11/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (4-6')
Collection Date: 10/5/2012 10:20:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/9/2012 10:32:04 AM
Motor Oil Range Organics (MRO)	ND	52		mg/Kg	1	10/9/2012 10:32:04 AM
Surr: DNOP	103	77.6-140		%REC	1	10/9/2012 10:32:04 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/10/2012 6:37:17 PM
Surr: BFB	108	84-116		%REC	1	10/10/2012 6:37:17 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/11/2012 3:26:55 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 4:05:56 PM
Arsenic	ND	12		mg/Kg	5	10/11/2012 4:05:56 PM
Barium	540	5.0		mg/Kg	50	10/11/2012 4:10:00 PM
Beryllium	ND	0.75		mg/Kg	5	10/11/2012 4:05:56 PM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 4:05:56 PM
Chromium	5.3	1.5		mg/Kg	5	10/11/2012 4:05:56 PM
Cobalt	3.0	1.5		mg/Kg	5	10/11/2012 4:05:56 PM
Iron	7900	500		mg/Kg	500	10/11/2012 4:15:16 PM
Lead	3.4	1.2		mg/Kg	5	10/11/2012 4:05:56 PM
Manganese	390	5.0		mg/Kg	50	10/11/2012 4:10:00 PM
Nickel	4.5	2.5		mg/Kg	5	10/11/2012 4:05:56 PM
Selenium	ND	12		mg/Kg	5	10/11/2012 4:05:56 PM
Silver	ND	1.2		mg/Kg	5	10/11/2012 4:05:56 PM
Vanadium	19	12		mg/Kg	5	10/11/2012 4:05:56 PM
Zinc	ND	12		mg/Kg	5	10/11/2012 4:05:56 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Aniline	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Anthracene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Azobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/10/2012 5:01:17 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-8 (4-6')
Project: SWMU NO.1
Collection Date: 10/5/2012 10:20:00 AM
Lab ID: 1210372-006 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/10/2012 5:01:17 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Carbazole	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 5:01:17 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/10/2012 5:01:17 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/10/2012 5:01:17 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Chrysene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/10/2012 5:01:17 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/10/2012 5:01:17 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/10/2012 5:01:17 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/10/2012 5:01:17 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/10/2012 5:01:17 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 5:01:17 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/10/2012 5:01:17 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 5:01:17 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 5:01:17 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Fluorene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Isophorone	ND	0.50		mg/Kg	1	10/10/2012 5:01:17 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/10/2012 5:01:17 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Naphthalene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (4-6')
Collection Date: 10/5/2012 10:20:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/10/2012 5:01:17 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/10/2012 5:01:17 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/10/2012 5:01:17 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/10/2012 5:01:17 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Phenol	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Pyrene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Pyridine	ND	0.50		mg/Kg	1	10/10/2012 5:01:17 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 5:01:17 AM
Surr: 2,4,6-Tribromophenol	97.6	21.3-145		%REC	1	10/10/2012 5:01:17 AM
Surr: 2-Fluorobiphenyl	91.8	20-131		%REC	1	10/10/2012 5:01:17 AM
Surr: 2-Fluorophenol	87.8	11.9-130		%REC	1	10/10/2012 5:01:17 AM
Surr: 4-Terphenyl-d14	79.3	25.1-149		%REC	1	10/10/2012 5:01:17 AM
Surr: Nitrobenzene-d5	93.8	25.6-137		%REC	1	10/10/2012 5:01:17 AM
Surr: Phenol-d5	94.4	20.3-132		%REC	1	10/10/2012 5:01:17 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00240	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Toluene	0.00218	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Ethylbenzene	0.00249	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Xylenes, Total	0.0128	0.00162		mg/Kg	1	10/9/2012 9:10:16 PM
Methyl tert-butyl ether (MTBE)	0.00810	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,2,4-Trimethylbenzene	0.0102	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,3,5-Trimethylbenzene	0.00249	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,2-Dichloroethane (EDC)	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,2-Dibromoethane (EDB)	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Naphthalene	0.0113	0.00162		mg/Kg	1	10/9/2012 9:10:16 PM
1-Methylnaphthalene	0.0164	0.00325		mg/Kg	1	10/9/2012 9:10:16 PM
2-Methylnaphthalene	0.0168	0.00325		mg/Kg	1	10/9/2012 9:10:16 PM
Acetone	0.114	0.00812		mg/Kg	1	10/9/2012 9:10:16 PM
Bromobenzene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Bromodichloromethane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Bromoform	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Bromomethane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
2-Butanone	0.0177	0.00812		mg/Kg	1	10/9/2012 9:10:16 PM
Carbon tetrachloride	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Chlorobenzene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Chloroethane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-8 (4-6')
Project: SWMU NO.1
Collection Date: 10/5/2012 10:20:00 AM
Lab ID: 1210372-006 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Chloromethane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
2-Chlorotoluene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Carbon disulfide	ND	0.00812		mg/Kg	1	10/9/2012 9:10:16 PM
4-Chlorotoluene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
cis-1,2-DCE	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
cis-1,3-Dichloropropene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,2-Dibromo-3-chloropropane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Dibromochloromethane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Dibromomethane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,2-Dichlorobenzene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,3-Dichlorobenzene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,4-Dichlorobenzene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Dichlorodifluoromethane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,1-Dichloroethane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,1-Dichloroethene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,2-Dichloropropane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,3-Dichloropropane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
2,2-Dichloropropane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,1-Dichloropropene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Hexachlorobutadiene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Isopropylbenzene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
4-Isopropyltoluene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Methylene chloride	ND	0.00244		mg/Kg	1	10/9/2012 9:10:16 PM
n-Butylbenzene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
2-Hexanone	ND	0.00812		mg/Kg	1	10/9/2012 9:10:16 PM
n-Propylbenzene	0.00136	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
sec-Butylbenzene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Styrene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
4-Methyl-2-pentanone	ND	0.00812		mg/Kg	1	10/9/2012 9:10:16 PM
tert-Butylbenzene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,1,1,2-Tetrachloroethane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,1,2,2-Tetrachloroethane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Tetrachloroethene (PCE)	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
trans-1,2-DCE	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
trans-1,3-Dichloropropene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,2,3-Trichlorobenzene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,2,4-Trichlorobenzene	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,1,1-Trichloroethane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
1,1,2-Trichloroethane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Trichloroethene (TCE)	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Trichlorofluoromethane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (4-6')
Collection Date: 10/5/2012 10:20:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Vinyl chloride	ND	0.000812		mg/Kg	1	10/9/2012 9:10:16 PM
Surr: 1,2-Dichloroethane-d4	99.2	70-130		%REC	1	10/9/2012 9:10:16 PM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	1	10/9/2012 9:10:16 PM
Surr: Dibromofluoromethane	105	70-130		%REC	1	10/9/2012 9:10:16 PM
Surr: Toluene-d8	89.2	70-130		%REC	1	10/9/2012 9:10:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-8 (10-12')
Project: SWMU NO.1
Collection Date: 10/5/2012 10:30:00 AM
Lab ID: 1210372-007 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	100	10		mg/Kg	1	10/9/2012 1:49:44 PM
Motor Oil Range Organics (MRO)	280	51		mg/Kg	1	10/9/2012 1:49:44 PM
Surr: DNOP	122	77.6-140		%REC	1	10/9/2012 1:49:44 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/9/2012 12:24:53 AM
Surr: BFB	103	84-116		%REC	1	10/9/2012 12:24:53 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.16	0.033		mg/kg	1	10/11/2012 3:28:43 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 4:18:09 PM
Arsenic	ND	12		mg/Kg	5	10/11/2012 4:18:09 PM
Barium	620	5.0		mg/Kg	50	10/11/2012 4:20:33 PM
Beryllium	ND	0.75		mg/Kg	5	10/11/2012 4:18:09 PM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 4:18:09 PM
Chromium	21	1.5		mg/Kg	5	10/11/2012 4:18:09 PM
Cobalt	6.6	1.5		mg/Kg	5	10/11/2012 4:18:09 PM
Iron	15000	500		mg/Kg	500	10/11/2012 4:22:59 PM
Lead	8.2	1.2		mg/Kg	5	10/11/2012 4:18:09 PM
Manganese	810	5.0		mg/Kg	50	10/11/2012 4:20:33 PM
Nickel	16	2.5		mg/Kg	5	10/11/2012 4:18:09 PM
Selenium	ND	12		mg/Kg	5	10/11/2012 4:18:09 PM
Silver	ND	1.2		mg/Kg	5	10/11/2012 4:18:09 PM
Vanadium	26	12		mg/Kg	5	10/11/2012 4:18:09 PM
Zinc	60	12		mg/Kg	5	10/11/2012 4:18:09 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Acenaphthylene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Aniline	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Anthracene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Azobenzene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/10/2012 1:40:56 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (10-12')
Collection Date: 10/5/2012 10:30:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/10/2012 1:40:56 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Carbazole	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/10/2012 1:40:56 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/10/2012 1:40:56 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	10/10/2012 1:40:56 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Chrysene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/10/2012 1:40:56 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	10/10/2012 1:40:56 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Dibenzofuran	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	10/10/2012 1:40:56 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/10/2012 1:40:56 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/10/2012 1:40:56 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/10/2012 1:40:56 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/10/2012 1:40:56 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/10/2012 1:40:56 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/10/2012 1:40:56 PM
Fluoranthene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Fluorene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Hexachloroethane	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Isophorone	ND	2.5		mg/Kg	1	10/10/2012 1:40:56 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/10/2012 1:40:56 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Naphthalene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (10-12')
Collection Date: 10/5/2012 10:30:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	10/10/2012 1:40:56 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/10/2012 1:40:56 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	10/10/2012 1:40:56 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/10/2012 1:40:56 PM
Phenanthrene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Phenol	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Pyrene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Pyridine	ND	2.5		mg/Kg	1	10/10/2012 1:40:56 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/10/2012 1:40:56 PM
Surr: 2,4,6-Tribromophenol	120	21.3-145		%REC	1	10/10/2012 1:40:56 PM
Surr: 2-Fluorobiphenyl	102	20-131		%REC	1	10/10/2012 1:40:56 PM
Surr: 2-Fluorophenol	112	11.9-130		%REC	1	10/10/2012 1:40:56 PM
Surr: 4-Terphenyl-d14	103	25.1-149		%REC	1	10/10/2012 1:40:56 PM
Surr: Nitrobenzene-d5	103	25.6-137		%REC	1	10/10/2012 1:40:56 PM
Surr: Phenol-d5	107	20.3-132		%REC	1	10/10/2012 1:40:56 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00119	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Toluene	0.00426	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Ethylbenzene	0.00470	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Xylenes, Total	0.0262	0.00186		mg/Kg	1	10/9/2012 9:41:06 PM
Methyl tert-butyl ether (MTBE)	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,2,4-Trimethylbenzene	0.00358	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,3,5-Trimethylbenzene	0.000978	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,2-Dichloroethane (EDC)	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,2-Dibromoethane (EDB)	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Naphthalene	ND	0.00186		mg/Kg	1	10/9/2012 9:41:06 PM
1-Methylnaphthalene	ND	0.00372		mg/Kg	1	10/9/2012 9:41:06 PM
2-Methylnaphthalene	ND	0.00372		mg/Kg	1	10/9/2012 9:41:06 PM
Acetone	0.145	0.00931		mg/Kg	1	10/9/2012 9:41:06 PM
Bromobenzene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Bromodichloromethane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Bromoform	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Bromomethane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
2-Butanone	ND	0.00931		mg/Kg	1	10/9/2012 9:41:06 PM
Carbon tetrachloride	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Chlorobenzene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Chloroethane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-8 (10-12')
Project: SWMU NO.1
Collection Date: 10/5/2012 10:30:00 AM
Lab ID: 1210372-007
Matrix: SOIL
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Chloromethane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
2-Chlorotoluene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Carbon disulfide	ND	0.00931		mg/Kg	1	10/9/2012 9:41:06 PM
4-Chlorotoluene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
cis-1,2-DCE	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
cis-1,3-Dichloropropene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,2-Dibromo-3-chloropropane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Dibromochloromethane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Dibromomethane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,2-Dichlorobenzene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,3-Dichlorobenzene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,4-Dichlorobenzene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Dichlorodifluoromethane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,1-Dichloroethane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,1-Dichloroethene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,2-Dichloropropane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,3-Dichloropropane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
2,2-Dichloropropane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,1-Dichloropropene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Hexachlorobutadiene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Isopropylbenzene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
4-Isopropyltoluene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Methylene chloride	ND	0.00279		mg/Kg	1	10/9/2012 9:41:06 PM
n-Butylbenzene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
2-Hexanone	ND	0.00931		mg/Kg	1	10/9/2012 9:41:06 PM
n-Propylbenzene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
sec-Butylbenzene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Styrene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
4-Methyl-2-pentanone	ND	0.00931		mg/Kg	1	10/9/2012 9:41:06 PM
tert-Butylbenzene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,1,1,2-Tetrachloroethane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,1,2,2-Tetrachloroethane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Tetrachloroethene (PCE)	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
trans-1,2-DCE	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
trans-1,3-Dichloropropene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,2,3-Trichlorobenzene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,2,4-Trichlorobenzene	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,1,1-Trichloroethane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
1,1,2-Trichloroethane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Trichloroethene (TCE)	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Trichlorofluoromethane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-8 (10-12')
Project: SWMU NO.1
Collection Date: 10/5/2012 10:30:00 AM
Lab ID: 1210372-007 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Vinyl chloride	ND	0.000931		mg/Kg	1	10/9/2012 9:41:06 PM
Surr: 1,2-Dichloroethane-d4	97.6	70-130		%REC	1	10/9/2012 9:41:06 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	1	10/9/2012 9:41:06 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	10/9/2012 9:41:06 PM
Surr: Toluene-d8	123	70-130		%REC	1	10/9/2012 9:41:06 PM

Qualifiers:

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

Analytical Report
Lab Order **1210372**
Date Reported: **11/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (12-14')
Collection Date: 10/5/2012 10:40:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	53	9.9		mg/Kg	1	10/9/2012 1:04:41 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/9/2012 1:04:41 PM
Surr: DNOP	103	77.6-140		%REC	1	10/9/2012 1:04:41 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/10/2012 7:06:08 PM
Surr: BFB	140	84-116	S	%REC	1	10/10/2012 7:06:08 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.044	0.033		mg/kg	1	10/11/2012 3:30:31 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 4:25:38 PM
Arsenic	ND	12		mg/Kg	5	10/11/2012 4:25:38 PM
Barium	370	5.0		mg/Kg	50	10/11/2012 4:28:05 PM
Beryllium	ND	0.75		mg/Kg	5	10/11/2012 4:25:38 PM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 4:25:38 PM
Chromium	10	1.5		mg/Kg	5	10/11/2012 4:25:38 PM
Cobalt	4.1	1.5		mg/Kg	5	10/11/2012 4:25:38 PM
Iron	8000	500		mg/Kg	500	10/11/2012 4:30:34 PM
Lead	2.0	1.2		mg/Kg	5	10/11/2012 4:25:38 PM
Manganese	540	5.0		mg/Kg	50	10/11/2012 4:28:05 PM
Nickel	6.8	2.5		mg/Kg	5	10/11/2012 4:25:38 PM
Selenium	ND	12		mg/Kg	5	10/11/2012 4:25:38 PM
Silver	ND	1.2		mg/Kg	5	10/11/2012 4:25:38 PM
Vanadium	15	12		mg/Kg	5	10/11/2012 4:25:38 PM
Zinc	18	12		mg/Kg	5	10/11/2012 4:25:38 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Acenaphthylene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Aniline	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Anthracene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Azobenzene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/10/2012 2:10:57 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-8 (12-14')
Project: SWMU NO.1
Collection Date: 10/5/2012 10:40:00 AM
Lab ID: 1210372-008 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/10/2012 2:10:57 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Carbazole	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/10/2012 2:10:57 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/10/2012 2:10:57 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	10/10/2012 2:10:57 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Chrysene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/10/2012 2:10:57 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	10/10/2012 2:10:57 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Dibenzofuran	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	10/10/2012 2:10:57 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/10/2012 2:10:57 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/10/2012 2:10:57 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/10/2012 2:10:57 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/10/2012 2:10:57 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/10/2012 2:10:57 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/10/2012 2:10:57 PM
Fluoranthene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Fluorene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Hexachloroethane	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Isophorone	ND	2.5		mg/Kg	1	10/10/2012 2:10:57 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/10/2012 2:10:57 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Naphthalene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (12-14')
Collection Date: 10/5/2012 10:40:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	10/10/2012 2:10:57 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/10/2012 2:10:57 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	10/10/2012 2:10:57 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/10/2012 2:10:57 PM
Phenanthrene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Phenol	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Pyrene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Pyridine	ND	2.5		mg/Kg	1	10/10/2012 2:10:57 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/10/2012 2:10:57 PM
Surr: 2,4,6-Tribromophenol	101	21.3-145		%REC	1	10/10/2012 2:10:57 PM
Surr: 2-Fluorobiphenyl	85.7	20-131		%REC	1	10/10/2012 2:10:57 PM
Surr: 2-Fluorophenol	91.5	11.9-130		%REC	1	10/10/2012 2:10:57 PM
Surr: 4-Terphenyl-d14	82.4	25.1-149		%REC	1	10/10/2012 2:10:57 PM
Surr: Nitrobenzene-d5	84.9	25.6-137		%REC	1	10/10/2012 2:10:57 PM
Surr: Phenol-d5	97.2	20.3-132		%REC	1	10/10/2012 2:10:57 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
Toluene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
Ethylbenzene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
Naphthalene	ND	0.10		mg/Kg	1	10/16/2012 1:00:38 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/16/2012 1:00:38 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/16/2012 1:00:38 AM
Acetone	ND	0.75		mg/Kg	1	10/16/2012 1:00:38 AM
Bromobenzene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
Bromodichloromethane	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
Bromoform	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
Bromomethane	ND	0.15		mg/Kg	1	10/16/2012 1:00:38 AM
2-Butanone	ND	0.50		mg/Kg	1	10/16/2012 1:00:38 AM
Carbon disulfide	ND	0.50		mg/Kg	1	10/16/2012 1:00:38 AM
Carbon tetrachloride	ND	0.10		mg/Kg	1	10/16/2012 1:00:38 AM
Chlorobenzene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
Chloroethane	ND	0.10		mg/Kg	1	10/16/2012 1:00:38 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (12-14')
Collection Date: 10/5/2012 10:40:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Chloroform	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
Chloromethane	ND	0.15		mg/Kg	1	10/16/2012 1:00:38 AM
2-Chlorotoluene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
4-Chlorotoluene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
cis-1,2-DCE	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	10/16/2012 1:00:38 AM
Dibromochloromethane	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
Dibromomethane	ND	0.10		mg/Kg	1	10/16/2012 1:00:38 AM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	10/16/2012 1:00:38 AM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	10/16/2012 1:00:38 AM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	10/16/2012 1:00:38 AM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	10/16/2012 1:00:38 AM
2-Hexanone	ND	0.50		mg/Kg	1	10/16/2012 1:00:38 AM
Isopropylbenzene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	10/16/2012 1:00:38 AM
Methylene chloride	ND	0.15		mg/Kg	1	10/16/2012 1:00:38 AM
n-Butylbenzene	ND	0.15		mg/Kg	1	10/16/2012 1:00:38 AM
n-Propylbenzene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
sec-Butylbenzene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
Styrene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
tert-Butylbenzene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
trans-1,2-DCE	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	10/16/2012 1:00:38 AM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	10/16/2012 1:00:38 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (12-14')
Collection Date: 10/5/2012 10:40:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Vinyl chloride	ND	0.050		mg/Kg	1	10/16/2012 1:00:38 AM
Xylenes, Total	ND	0.10		mg/Kg	1	10/16/2012 1:00:38 AM
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%REC	1	10/16/2012 1:00:38 AM
Surr: 4-Bromofluorobenzene	74.4	70-130		%REC	1	10/16/2012 1:00:38 AM
Surr: Dibromofluoromethane	92.3	70-130		%REC	1	10/16/2012 1:00:38 AM
Surr: Toluene-d8	100	70-130		%REC	1	10/16/2012 1:00:38 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-009 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (16-18')
Collection Date: 10/5/2012 11:10:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/9/2012 10:53:40 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/9/2012 10:53:40 AM
Surr: DNOP	93.9	77.6-140		%REC	1	10/9/2012 10:53:40 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/11/2012 12:22:40 AM
Surr: BFB	105	84-116		%REC	1	10/11/2012 12:22:40 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/11/2012 3:32:16 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 4:33:26 PM
Arsenic	ND	12		mg/Kg	5	10/11/2012 4:33:26 PM
Barium	550	5.0		mg/Kg	50	10/11/2012 4:43:28 PM
Beryllium	ND	0.75		mg/Kg	5	10/11/2012 4:33:26 PM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 4:33:26 PM
Chromium	6.9	1.5		mg/Kg	5	10/11/2012 4:33:26 PM
Cobalt	4.4	1.5		mg/Kg	5	10/11/2012 4:33:26 PM
Iron	11000	500		mg/Kg	500	10/11/2012 4:45:54 PM
Lead	2.8	1.2		mg/Kg	5	10/11/2012 4:33:26 PM
Manganese	740	5.0		mg/Kg	50	10/11/2012 4:43:28 PM
Nickel	6.1	2.5		mg/Kg	5	10/11/2012 4:33:26 PM
Selenium	ND	12		mg/Kg	5	10/11/2012 4:33:26 PM
Silver	ND	1.2		mg/Kg	5	10/11/2012 4:33:26 PM
Vanadium	16	12		mg/Kg	5	10/11/2012 4:33:26 PM
Zinc	14	12		mg/Kg	5	10/11/2012 4:33:26 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Aniline	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Anthracene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Azobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/10/2012 5:30:21 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-009 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (16-18')
Collection Date: 10/5/2012 11:10:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/10/2012 5:30:21 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Carbazole	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 5:30:21 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/10/2012 5:30:21 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/10/2012 5:30:21 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Chrysene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/10/2012 5:30:21 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/10/2012 5:30:21 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/10/2012 5:30:21 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/10/2012 5:30:21 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/10/2012 5:30:21 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 5:30:21 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/10/2012 5:30:21 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 5:30:21 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 5:30:21 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Fluorene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Isophorone	ND	0.50		mg/Kg	1	10/10/2012 5:30:21 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/10/2012 5:30:21 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Naphthalene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-009 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (16-18')
Collection Date: 10/5/2012 11:10:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/10/2012 5:30:21 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/10/2012 5:30:21 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/10/2012 5:30:21 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/10/2012 5:30:21 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Phenol	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Pyrene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Pyridine	ND	0.50		mg/Kg	1	10/10/2012 5:30:21 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 5:30:21 AM
Surr: 2,4,6-Tribromophenol	90.6	21.3-145		%REC	1	10/10/2012 5:30:21 AM
Surr: 2-Fluorobiphenyl	73.0	20-131		%REC	1	10/10/2012 5:30:21 AM
Surr: 2-Fluorophenol	85.9	11.9-130		%REC	1	10/10/2012 5:30:21 AM
Surr: 4-Terphenyl-d14	69.8	25.1-149		%REC	1	10/10/2012 5:30:21 AM
Surr: Nitrobenzene-d5	76.0	25.6-137		%REC	1	10/10/2012 5:30:21 AM
Surr: Phenol-d5	81.7	20.3-132		%REC	1	10/10/2012 5:30:21 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Toluene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Ethylbenzene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Xylenes, Total	ND	0.00222		mg/Kg	1	10/10/2012 3:08:16 PM
Methyl tert-butyl ether (MTBE)	0.0241	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,2,4-Trimethylbenzene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,3,5-Trimethylbenzene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,2-Dichloroethane (EDC)	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,2-Dibromoethane (EDB)	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Naphthalene	ND	0.00222		mg/Kg	1	10/10/2012 3:08:16 PM
1-Methylnaphthalene	ND	0.00443		mg/Kg	1	10/10/2012 3:08:16 PM
2-Methylnaphthalene	ND	0.00443		mg/Kg	1	10/10/2012 3:08:16 PM
Acetone	0.0364	0.0111		mg/Kg	1	10/10/2012 3:08:16 PM
Bromobenzene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Bromodichloromethane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Bromoform	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Bromomethane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
2-Butanone	ND	0.0111		mg/Kg	1	10/10/2012 3:08:16 PM
Carbon tetrachloride	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Chlorobenzene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Chloroethane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-009 **Matrix:** SOIL

Client Sample ID: SWMU 1-8 (16-18')
Collection Date: 10/5/2012 11:10:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Chloromethane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
2-Chlorotoluene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Carbon disulfide	ND	0.0111		mg/Kg	1	10/10/2012 3:08:16 PM
4-Chlorotoluene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
cis-1,2-DCE	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
cis-1,3-Dichloropropene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,2-Dibromo-3-chloropropane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Dibromochloromethane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Dibromomethane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,2-Dichlorobenzene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,3-Dichlorobenzene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,4-Dichlorobenzene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Dichlorodifluoromethane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,1-Dichloroethane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,1-Dichloroethene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,2-Dichloropropane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,3-Dichloropropane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
2,2-Dichloropropane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,1-Dichloropropene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Hexachlorobutadiene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Isopropylbenzene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
4-Isopropyltoluene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Methylene chloride	ND	0.00332		mg/Kg	1	10/10/2012 3:08:16 PM
n-Butylbenzene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
2-Hexanone	ND	0.0111		mg/Kg	1	10/10/2012 3:08:16 PM
n-Propylbenzene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
sec-Butylbenzene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Styrene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
4-Methyl-2-pentanone	ND	0.0111		mg/Kg	1	10/10/2012 3:08:16 PM
tert-Butylbenzene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,1,1,2-Tetrachloroethane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,1,2,2-Tetrachloroethane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Tetrachloroethene (PCE)	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
trans-1,2-DCE	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
trans-1,3-Dichloropropene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,2,3-Trichlorobenzene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,2,4-Trichlorobenzene	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,1,1-Trichloroethane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
1,1,2-Trichloroethane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Trichloroethene (TCE)	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Trichlorofluoromethane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-8 (16-18')
Project: SWMU NO.1
Collection Date: 10/5/2012 11:10:00 AM
Lab ID: 1210372-009 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Vinyl chloride	ND	0.00111		mg/Kg	1	10/10/2012 3:08:16 PM
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%REC	1	10/10/2012 3:08:16 PM
Surr: 4-Bromofluorobenzene	91.7	70-130		%REC	1	10/10/2012 3:08:16 PM
Surr: Dibromofluoromethane	101	70-130		%REC	1	10/10/2012 3:08:16 PM
Surr: Toluene-d8	88.8	70-130		%REC	1	10/10/2012 3:08:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB100512
Project: SWMU NO.1
Collection Date: 10/5/2012 5:40:00 PM
Lab ID: 1210372-010 **Matrix:** AQUEOUS **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/8/2012 5:48:01 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/8/2012 5:48:01 PM
Surr: DNOP	120	79.5-166		%REC	1	10/8/2012 5:48:01 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/10/2012 5:46:36 PM
Surr: BFB	118	69.8-119		%REC	1	10/10/2012 5:46:36 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	ND	0.10		mg/L	1	10/11/2012 3:10:22 AM
Chloride	ND	0.50		mg/L	1	10/8/2012 8:16:41 PM
Sulfate	ND	0.50		mg/L	1	10/8/2012 8:16:41 PM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	ND	0.0020		mg/L	1	10/10/2012 9:35:20 PM
Beryllium	ND	0.0020		mg/L	1	10/10/2012 9:35:20 PM
Cadmium	ND	0.0020		mg/L	1	10/10/2012 9:35:20 PM
Chromium	ND	0.0060		mg/L	1	10/10/2012 9:35:20 PM
Cobalt	ND	0.0060		mg/L	1	10/10/2012 9:35:20 PM
Iron	0.030	0.020		mg/L	1	10/10/2012 9:35:20 PM
Manganese	ND	0.0020		mg/L	1	10/10/2012 9:35:20 PM
Nickel	ND	0.010		mg/L	1	10/10/2012 9:35:20 PM
Silver	ND	0.0050		mg/L	1	10/10/2012 9:35:20 PM
Vanadium	ND	0.050		mg/L	1	10/10/2012 9:35:20 PM
Zinc	ND	0.010		mg/L	1	10/12/2012 8:02:27 AM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0010		mg/L	1	10/17/2012 11:21:13 AM
Arsenic	ND	0.0010		mg/L	1	10/17/2012 11:21:13 AM
Lead	ND	0.0010		mg/L	1	10/17/2012 11:21:13 AM
Selenium	ND	0.0010		mg/L	1	10/17/2012 11:21:13 AM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	10/12/2012 4:49:12 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Acenaphthylene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Aniline	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Anthracene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Azobenzene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Benz(a)anthracene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/11/2012 10:38:52 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB100512
Project: SWMU NO.1
Collection Date: 10/5/2012 5:40:00 PM
Lab ID: 1210372-010
Matrix: AQUEOUS
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Benzo(k)fluoranthene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Benzoic acid	ND	20		µg/L	1	10/11/2012 10:38:52 PM
Benzyl alcohol	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/11/2012 10:38:52 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Carbazole	ND	10		µg/L	1	10/11/2012 10:38:52 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/11/2012 10:38:52 PM
4-Chloroaniline	ND	10		µg/L	1	10/11/2012 10:38:52 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
2-Chlorophenol	ND	10		µg/L	1	10/11/2012 10:38:52 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Chrysene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Di-n-octyl phthalate	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Dibenzofuran	ND	10		µg/L	1	10/11/2012 10:38:52 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Diethyl phthalate	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Dimethyl phthalate	ND	10		µg/L	1	10/11/2012 10:38:52 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/11/2012 10:38:52 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/11/2012 10:38:52 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/11/2012 10:38:52 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/11/2012 10:38:52 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Fluoranthene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Fluorene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Hexachlorobenzene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Hexachloroethane	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Isophorone	ND	10		µg/L	1	10/11/2012 10:38:52 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/11/2012 10:38:52 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-010
Matrix: AQUEOUS
Client Sample ID: EB100512
Collection Date: 10/5/2012 5:40:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Methylphenol	ND	10		µg/L	1	10/11/2012 10:38:52 PM
3+4-Methylphenol	ND	10		µg/L	1	10/11/2012 10:38:52 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/11/2012 10:38:52 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/11/2012 10:38:52 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Naphthalene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
2-Nitroaniline	ND	10		µg/L	1	10/11/2012 10:38:52 PM
3-Nitroaniline	ND	10		µg/L	1	10/11/2012 10:38:52 PM
4-Nitroaniline	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Nitrobenzene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
2-Nitrophenol	ND	10		µg/L	1	10/11/2012 10:38:52 PM
4-Nitrophenol	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Pentachlorophenol	ND	20		µg/L	1	10/11/2012 10:38:52 PM
Phenanthrene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Phenol	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Pyrene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Pyridine	ND	10		µg/L	1	10/11/2012 10:38:52 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/11/2012 10:38:52 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/11/2012 10:38:52 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/11/2012 10:38:52 PM
Surr: 2,4,6-Tribromophenol	81.3	44.2-126		%REC	1	10/11/2012 10:38:52 PM
Surr: 2-Fluorobiphenyl	75.4	37-114		%REC	1	10/11/2012 10:38:52 PM
Surr: 2-Fluorophenol	61.0	23.4-98		%REC	1	10/11/2012 10:38:52 PM
Surr: 4-Terphenyl-d14	70.8	41.3-116		%REC	1	10/11/2012 10:38:52 PM
Surr: Nitrobenzene-d5	82.9	39.5-118		%REC	1	10/11/2012 10:38:52 PM
Surr: Phenol-d5	49.6	20.9-95.9		%REC	1	10/11/2012 10:38:52 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
Toluene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
Ethylbenzene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
Naphthalene	ND	2.0		µg/L	1	10/9/2012 2:49:27 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/9/2012 2:49:27 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/9/2012 2:49:27 PM
Acetone	ND	10		µg/L	1	10/9/2012 2:49:27 PM
Bromobenzene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB100512
Project: SWMU NO.1
Collection Date: 10/5/2012 5:40:00 PM
Lab ID: 1210372-010 **Matrix:** AQUEOUS **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Bromoform	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
Bromomethane	ND	3.0		µg/L	1	10/9/2012 2:49:27 PM
2-Butanone	ND	10		µg/L	1	10/9/2012 2:49:27 PM
Carbon disulfide	ND	10		µg/L	1	10/9/2012 2:49:27 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
Chlorobenzene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
Chloroethane	ND	2.0		µg/L	1	10/9/2012 2:49:27 PM
Chloroform	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
Chloromethane	ND	3.0		µg/L	1	10/9/2012 2:49:27 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/9/2012 2:49:27 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
Dibromomethane	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/9/2012 2:49:27 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
2-Hexanone	ND	10		µg/L	1	10/9/2012 2:49:27 PM
Isopropylbenzene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/9/2012 2:49:27 PM
Methylene Chloride	ND	3.0		µg/L	1	10/9/2012 2:49:27 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/9/2012 2:49:27 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
Styrene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/9/2012 2:49:27 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB100512
Project: SWMU NO.1
Collection Date: 10/5/2012 5:40:00 PM
Lab ID: 1210372-010 **Matrix:** AQUEOUS **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/9/2012 2:49:27 PM
Vinyl chloride	ND	1.0		µg/L	1	10/9/2012 2:49:27 PM
Xylenes, Total	ND	1.5		µg/L	1	10/9/2012 2:49:27 PM
Surr: 1,2-Dichloroethane-d4	93.2	70-130		%REC	1	10/9/2012 2:49:27 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	10/9/2012 2:49:27 PM
Surr: Dibromofluoromethane	93.7	70-130		%REC	1	10/9/2012 2:49:27 PM
Surr: Toluene-d8	96.2	70-130		%REC	1	10/9/2012 2:49:27 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: SWMU NO.1
Collection Date:
Lab ID: 1210372-011
Matrix: TRIP BLANK
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
Toluene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
Ethylbenzene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
Naphthalene	ND	2.0		µg/L	1	10/9/2012 4:42:30 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/9/2012 4:42:30 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/9/2012 4:42:30 PM
Acetone	ND	10		µg/L	1	10/9/2012 4:42:30 PM
Bromobenzene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
Bromoform	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
Bromomethane	ND	3.0		µg/L	1	10/9/2012 4:42:30 PM
2-Butanone	ND	10		µg/L	1	10/9/2012 4:42:30 PM
Carbon disulfide	ND	10		µg/L	1	10/9/2012 4:42:30 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
Chlorobenzene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
Chloroethane	ND	2.0		µg/L	1	10/9/2012 4:42:30 PM
Chloroform	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
Chloromethane	ND	3.0		µg/L	1	10/9/2012 4:42:30 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/9/2012 4:42:30 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
Dibromomethane	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/9/2012 4:42:30 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
2-Hexanone	ND	10		µg/L	1	10/9/2012 4:42:30 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: SWMU NO.1
Collection Date:
Lab ID: 1210372-011
Matrix: TRIP BLANK
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Isopropylbenzene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/9/2012 4:42:30 PM
Methylene Chloride	ND	3.0		µg/L	1	10/9/2012 4:42:30 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/9/2012 4:42:30 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
Styrene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/9/2012 4:42:30 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/9/2012 4:42:30 PM
Vinyl chloride	ND	1.0		µg/L	1	10/9/2012 4:42:30 PM
Xylenes, Total	ND	1.5		µg/L	1	10/9/2012 4:42:30 PM
Surr: 1,2-Dichloroethane-d4	93.7	70-130		%REC	1	10/9/2012 4:42:30 PM
Surr: 4-Bromofluorobenzene	97.4	70-130		%REC	1	10/9/2012 4:42:30 PM
Surr: Dibromofluoromethane	91.8	70-130		%REC	1	10/9/2012 4:42:30 PM
Surr: Toluene-d8	95.1	70-130		%REC	1	10/9/2012 4:42:30 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-4 GW
Project: SWMU NO.1
Collection Date: 10/5/2012 7:45:00 AM
Lab ID: 1210372-012 **Matrix:** AQUEOUS **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	4.8	1.0	*	mg/L	10	10/17/2012 9:32:31 PM
Chloride	1900	50		mg/L	100	10/11/2012 10:02:24 PM
Sulfate	180	2.5		mg/L	5	10/8/2012 8:29:06 PM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	1.2	0.010		mg/L	5	10/10/2012 6:35:24 PM
Beryllium	ND	0.0020		mg/L	1	10/10/2012 6:31:32 PM
Cadmium	ND	0.0020		mg/L	1	10/10/2012 6:31:32 PM
Chromium	ND	0.0060		mg/L	1	10/10/2012 6:31:32 PM
Cobalt	0.011	0.0060		mg/L	1	10/10/2012 6:31:32 PM
Iron	0.32	0.020	*	mg/L	1	10/10/2012 6:31:32 PM
Manganese	0.99	0.0020	*	mg/L	1	10/10/2012 6:31:32 PM
Nickel	0.13	0.010	*	mg/L	1	10/10/2012 6:31:32 PM
Silver	ND	0.0050		mg/L	1	10/10/2012 6:31:32 PM
Vanadium	ND	0.050		mg/L	1	10/10/2012 6:31:32 PM
Zinc	0.047	0.010		mg/L	1	10/10/2012 6:31:32 PM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0025		mg/L	2.5	10/15/2012 5:07:00 PM
Arsenic	0.016	0.0025	*	mg/L	2.5	10/15/2012 5:07:00 PM
Lead	ND	0.0025		mg/L	2.5	10/15/2012 5:07:00 PM
Selenium	0.0073	0.0025		mg/L	2.5	10/15/2012 5:07:00 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	10/12/2012 4:51:01 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-5 GW
Project: SWMU NO.1
Collection Date: 10/5/2012 3:20:00 PM
Lab ID: 1210372-013 **Matrix:** AQUEOUS **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/8/2012 6:13:37 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/8/2012 6:13:37 PM
Surr: DNOP	123	79.5-166		%REC	1	10/8/2012 6:13:37 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.26	0.10		mg/L	2	10/10/2012 6:16:46 PM
Surr: BFB	121	69.8-119	S	%REC	2	10/10/2012 6:16:46 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Acenaphthylene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Aniline	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Anthracene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Azobenzene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Benz(a)anthracene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Benzoic acid	ND	20		µg/L	1	10/11/2012 11:08:06 PM
Benzyl alcohol	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/11/2012 11:08:06 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Carbazole	ND	10		µg/L	1	10/11/2012 11:08:06 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/11/2012 11:08:06 PM
4-Chloroaniline	ND	10		µg/L	1	10/11/2012 11:08:06 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
2-Chlorophenol	ND	10		µg/L	1	10/11/2012 11:08:06 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Chrysene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Di-n-octyl phthalate	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Dibenzofuran	ND	10		µg/L	1	10/11/2012 11:08:06 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Diethyl phthalate	ND	10		µg/L	1	10/11/2012 11:08:06 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-5 GW
Project: SWMU NO.1
Collection Date: 10/5/2012 3:20:00 PM
Lab ID: 1210372-013 **Matrix:** AQUEOUS **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Dimethyl phthalate	13	10		µg/L	1	10/11/2012 11:08:06 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/11/2012 11:08:06 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/11/2012 11:08:06 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/11/2012 11:08:06 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/11/2012 11:08:06 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Fluoranthene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Fluorene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Hexachlorobenzene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Hexachloroethane	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Isophorone	ND	10		µg/L	1	10/11/2012 11:08:06 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
2-Methylphenol	ND	10		µg/L	1	10/11/2012 11:08:06 PM
3+4-Methylphenol	ND	10		µg/L	1	10/11/2012 11:08:06 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/11/2012 11:08:06 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/11/2012 11:08:06 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Naphthalene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
2-Nitroaniline	ND	10		µg/L	1	10/11/2012 11:08:06 PM
3-Nitroaniline	ND	10		µg/L	1	10/11/2012 11:08:06 PM
4-Nitroaniline	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Nitrobenzene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
2-Nitrophenol	ND	10		µg/L	1	10/11/2012 11:08:06 PM
4-Nitrophenol	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Pentachlorophenol	ND	20		µg/L	1	10/11/2012 11:08:06 PM
Phenanthrene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Phenol	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Pyrene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Pyridine	ND	10		µg/L	1	10/11/2012 11:08:06 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/11/2012 11:08:06 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/11/2012 11:08:06 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/11/2012 11:08:06 PM
Surr: 2,4,6-Tribromophenol	78.9	44.2-126		%REC	1	10/11/2012 11:08:06 PM
Surr: 2-Fluorobiphenyl	65.7	37-114		%REC	1	10/11/2012 11:08:06 PM
Surr: 2-Fluorophenol	46.7	23.4-98		%REC	1	10/11/2012 11:08:06 PM
Surr: 4-Terphenyl-d14	63.0	41.3-116		%REC	1	10/11/2012 11:08:06 PM
Surr: Nitrobenzene-d5	59.8	39.5-118		%REC	1	10/11/2012 11:08:06 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-5 GW
Project: SWMU NO.1
Collection Date: 10/5/2012 3:20:00 PM
Lab ID: 1210372-013 **Matrix:** AQUEOUS **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: Phenol-d5	37.7	20.9-95.9		%REC	1	10/11/2012 11:08:06 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	4.5	2.0		µg/L	2	10/9/2012 5:10:44 PM
Toluene	7.2	2.0		µg/L	2	10/9/2012 5:10:44 PM
Ethylbenzene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
Methyl tert-butyl ether (MTBE)	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,2,4-Trimethylbenzene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,3,5-Trimethylbenzene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,2-Dichloroethane (EDC)	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,2-Dibromoethane (EDB)	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
Naphthalene	ND	4.0		µg/L	2	10/9/2012 5:10:44 PM
1-Methylnaphthalene	ND	8.0		µg/L	2	10/9/2012 5:10:44 PM
2-Methylnaphthalene	ND	8.0		µg/L	2	10/9/2012 5:10:44 PM
Acetone	49	20		µg/L	2	10/9/2012 5:10:44 PM
Bromobenzene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
Bromodichloromethane	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
Bromoform	2.7	2.0		µg/L	2	10/9/2012 5:10:44 PM
Bromomethane	ND	6.0		µg/L	2	10/9/2012 5:10:44 PM
2-Butanone	20	20		µg/L	2	10/9/2012 5:10:44 PM
Carbon disulfide	ND	20		µg/L	2	10/9/2012 5:10:44 PM
Carbon Tetrachloride	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
Chlorobenzene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
Chloroethane	ND	4.0		µg/L	2	10/9/2012 5:10:44 PM
Chloroform	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
Chloromethane	ND	6.0		µg/L	2	10/9/2012 5:10:44 PM
2-Chlorotoluene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
4-Chlorotoluene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
cis-1,2-DCE	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
cis-1,3-Dichloropropene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,2-Dibromo-3-chloropropane	ND	4.0		µg/L	2	10/9/2012 5:10:44 PM
Dibromochloromethane	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
Dibromomethane	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,2-Dichlorobenzene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,3-Dichlorobenzene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,4-Dichlorobenzene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
Dichlorodifluoromethane	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,1-Dichloroethane	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,1-Dichloroethene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,2-Dichloropropane	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,3-Dichloropropane	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
2,2-Dichloropropane	ND	4.0		µg/L	2	10/9/2012 5:10:44 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-5 GW
Project: SWMU NO.1
Collection Date: 10/5/2012 3:20:00 PM
Lab ID: 1210372-013 **Matrix:** AQUEOUS **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1-Dichloropropene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
Hexachlorobutadiene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
2-Hexanone	ND	20		µg/L	2	10/9/2012 5:10:44 PM
Isopropylbenzene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
4-Isopropyltoluene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
4-Methyl-2-pentanone	ND	20		µg/L	2	10/9/2012 5:10:44 PM
Methylene Chloride	ND	6.0		µg/L	2	10/9/2012 5:10:44 PM
n-Butylbenzene	ND	6.0		µg/L	2	10/9/2012 5:10:44 PM
n-Propylbenzene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
sec-Butylbenzene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
Styrene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
tert-Butylbenzene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,1,1,2-Tetrachloroethane	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,1,2,2-Tetrachloroethane	ND	4.0		µg/L	2	10/9/2012 5:10:44 PM
Tetrachloroethene (PCE)	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
trans-1,2-DCE	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
trans-1,3-Dichloropropene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,2,3-Trichlorobenzene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,2,4-Trichlorobenzene	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,1,1-Trichloroethane	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,1,2-Trichloroethane	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
Trichloroethene (TCE)	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
Trichlorofluoromethane	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
1,2,3-Trichloropropane	ND	4.0		µg/L	2	10/9/2012 5:10:44 PM
Vinyl chloride	ND	2.0		µg/L	2	10/9/2012 5:10:44 PM
Xylenes, Total	ND	3.0		µg/L	2	10/9/2012 5:10:44 PM
Surr: 1,2-Dichloroethane-d4	96.6	70-130		%REC	2	10/9/2012 5:10:44 PM
Surr: 4-Bromofluorobenzene	96.3	70-130		%REC	2	10/9/2012 5:10:44 PM
Surr: Dibromofluoromethane	97.8	70-130		%REC	2	10/9/2012 5:10:44 PM
Surr: Toluene-d8	97.0	70-130		%REC	2	10/9/2012 5:10:44 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-8 GW
Project: SWMU NO.1
Collection Date: 10/5/2012 4:05:00 PM
Lab ID: 1210372-014
Matrix: AQUEOUS
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/8/2012 6:39:15 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/8/2012 6:39:15 PM
Surr: DNOP	122	79.5-166		%REC	1	10/8/2012 6:39:15 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1.0	0.050		mg/L	1	10/10/2012 6:46:57 PM
Surr: BFB	165	69.8-119	S	%REC	1	10/10/2012 6:46:57 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	0.78	0.10		mg/L	1	10/11/2012 3:47:36 AM
Chloride	660	25		mg/L	50	10/11/2012 10:14:48 PM
Sulfate	52	2.5		mg/L	5	10/8/2012 8:53:56 PM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	4.7	0.020	*	mg/L	5	10/10/2012 6:57:30 PM
Beryllium	0.0065	0.0040	*	mg/L	1	10/10/2012 6:54:11 PM
Cadmium	ND	0.0040		mg/L	1	10/10/2012 6:54:11 PM
Chromium	0.058	0.012		mg/L	1	10/12/2012 8:21:18 AM
Cobalt	0.053	0.012		mg/L	1	10/10/2012 6:54:11 PM
Iron	39	2.0	*	mg/L	50	10/12/2012 8:24:41 AM
Manganese	7.9	0.020	*	mg/L	5	10/10/2012 6:57:30 PM
Nickel	0.11	0.020	*	mg/L	1	10/10/2012 6:54:11 PM
Silver	ND	0.010		mg/L	1	10/10/2012 6:54:11 PM
Vanadium	ND	0.10		mg/L	1	10/10/2012 6:54:11 PM
Zinc	0.11	0.020		mg/L	1	10/12/2012 8:21:18 AM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0050		mg/L	2.5	10/15/2012 5:10:56 PM
Arsenic	0.032	0.0050	*	mg/L	2.5	10/15/2012 5:10:56 PM
Lead	0.078	0.0050	*	mg/L	2.5	10/15/2012 5:10:56 PM
Selenium	0.0075	0.0050		mg/L	2.5	10/15/2012 5:10:56 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	10/12/2012 4:52:50 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Acenaphthylene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Aniline	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Anthracene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Azobenzene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Benz(a)anthracene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/11/2012 11:37:31 PM

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Hall Environmental Analysis Laboratory, Inc.

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Client Sample ID: SWMU 1-8 GW
Project: SWMU NO.1
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Lab ID: 1210372-014
Matrix: AQUEOUS
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Benzo(k)fluoranthene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Benzoic acid	ND	20		µg/L	1	10/11/2012 11:37:31 PM
Benzyl alcohol	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/11/2012 11:37:31 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Carbazole	ND	10		µg/L	1	10/11/2012 11:37:31 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/11/2012 11:37:31 PM
4-Chloroaniline	ND	10		µg/L	1	10/11/2012 11:37:31 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
2-Chlorophenol	ND	10		µg/L	1	10/11/2012 11:37:31 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Chrysene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Di-n-octyl phthalate	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Dibenzofuran	ND	10		µg/L	1	10/11/2012 11:37:31 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Diethyl phthalate	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Dimethyl phthalate	ND	10		µg/L	1	10/11/2012 11:37:31 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/11/2012 11:37:31 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/11/2012 11:37:31 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/11/2012 11:37:31 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/11/2012 11:37:31 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Fluoranthene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Fluorene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Hexachlorobenzene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Hexachloroethane	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Isophorone	ND	10		µg/L	1	10/11/2012 11:37:31 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/11/2012 11:37:31 PM

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Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Methylphenol	ND	10		µg/L	1	10/11/2012 11:37:31 PM
3+4-Methylphenol	ND	10		µg/L	1	10/11/2012 11:37:31 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/11/2012 11:37:31 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/11/2012 11:37:31 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Naphthalene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
2-Nitroaniline	ND	10		µg/L	1	10/11/2012 11:37:31 PM
3-Nitroaniline	ND	10		µg/L	1	10/11/2012 11:37:31 PM
4-Nitroaniline	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Nitrobenzene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
2-Nitrophenol	ND	10		µg/L	1	10/11/2012 11:37:31 PM
4-Nitrophenol	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Pentachlorophenol	ND	20		µg/L	1	10/11/2012 11:37:31 PM
Phenanthrene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Phenol	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Pyrene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Pyridine	ND	10		µg/L	1	10/11/2012 11:37:31 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/11/2012 11:37:31 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/11/2012 11:37:31 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/11/2012 11:37:31 PM
Surr: 2,4,6-Tribromophenol	77.6	44.2-126		%REC	1	10/11/2012 11:37:31 PM
Surr: 2-Fluorobiphenyl	75.6	37-114		%REC	1	10/11/2012 11:37:31 PM
Surr: 2-Fluorophenol	62.3	23.4-98		%REC	1	10/11/2012 11:37:31 PM
Surr: 4-Terphenyl-d14	61.0	41.3-116		%REC	1	10/11/2012 11:37:31 PM
Surr: Nitrobenzene-d5	78.2	39.5-118		%REC	1	10/11/2012 11:37:31 PM
Surr: Phenol-d5	45.5	20.9-95.9		%REC	1	10/11/2012 11:37:31 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	2.3	1.0		µg/L	1	10/9/2012 5:38:50 PM
Toluene	2.3	1.0		µg/L	1	10/9/2012 5:38:50 PM
Ethylbenzene	2.8	1.0		µg/L	1	10/9/2012 5:38:50 PM
Methyl tert-butyl ether (MTBE)	310	10		µg/L	10	10/10/2012 3:10:30 PM
1,2,4-Trimethylbenzene	6.9	1.0		µg/L	1	10/9/2012 5:38:50 PM
1,3,5-Trimethylbenzene	1.5	1.0		µg/L	1	10/9/2012 5:38:50 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
Naphthalene	2.3	2.0		µg/L	1	10/9/2012 5:38:50 PM
1-Methylnaphthalene	9.8	4.0		µg/L	1	10/9/2012 5:38:50 PM
2-Methylnaphthalene	10	4.0		µg/L	1	10/9/2012 5:38:50 PM
Acetone	58	10		µg/L	1	10/9/2012 5:38:50 PM
Bromobenzene	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM

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P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-8 GW
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Collection Date: 10/5/2012 4:05:00 PM
Lab ID: 1210372-014 **Matrix:** AQUEOUS **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Bromoform	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
Bromomethane	ND	3.0		µg/L	1	10/9/2012 5:38:50 PM
2-Butanone	ND	10		µg/L	1	10/9/2012 5:38:50 PM
Carbon disulfide	ND	10		µg/L	1	10/9/2012 5:38:50 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
Chlorobenzene	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
Chloroethane	ND	2.0		µg/L	1	10/9/2012 5:38:50 PM
Chloroform	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
Chloromethane	ND	3.0		µg/L	1	10/9/2012 5:38:50 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/9/2012 5:38:50 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
Dibromomethane	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/9/2012 5:38:50 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
2-Hexanone	ND	10		µg/L	1	10/9/2012 5:38:50 PM
Isopropylbenzene	1.3	1.0		µg/L	1	10/9/2012 5:38:50 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/9/2012 5:38:50 PM
Methylene Chloride	ND	3.0		µg/L	1	10/9/2012 5:38:50 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/9/2012 5:38:50 PM
n-Propylbenzene	1.7	1.0		µg/L	1	10/9/2012 5:38:50 PM
sec-Butylbenzene	1.4	1.0		µg/L	1	10/9/2012 5:38:50 PM
Styrene	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/9/2012 5:38:50 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM

Qualifiers:

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Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/9/2012 5:38:50 PM
Vinyl chloride	ND	1.0		µg/L	1	10/9/2012 5:38:50 PM
Xylenes, Total	5.9	1.5		µg/L	1	10/9/2012 5:38:50 PM
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	10/9/2012 5:38:50 PM
Surr: 4-Bromofluorobenzene	95.5	70-130		%REC	1	10/9/2012 5:38:50 PM
Surr: Dibromofluoromethane	100	70-130		%REC	1	10/9/2012 5:38:50 PM
Surr: Toluene-d8	93.2	70-130		%REC	1	10/9/2012 5:38:50 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-015 **Matrix:** SOIL

Client Sample ID: SWMU 1-7 (16-18')
Collection Date: 10/4/2012 2:40:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/9/2012 11:15:13 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/9/2012 11:15:13 AM
Surr: DNOP	98.6	77.6-140		%REC	1	10/9/2012 11:15:13 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/9/2012 1:50:59 AM
Surr: BFB	99.5	84-116		%REC	1	10/9/2012 1:50:59 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/11/2012 3:34:04 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 4:48:45 PM
Arsenic	ND	12		mg/Kg	5	10/11/2012 4:48:45 PM
Barium	330	5.0		mg/Kg	50	10/11/2012 4:51:11 PM
Beryllium	1.1	0.75		mg/Kg	5	10/11/2012 4:48:45 PM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 4:48:45 PM
Chromium	15	1.5		mg/Kg	5	10/11/2012 4:48:45 PM
Cobalt	6.4	1.5		mg/Kg	5	10/11/2012 4:48:45 PM
Iron	22000	500		mg/Kg	500	10/11/2012 4:53:35 PM
Lead	1.7	1.2		mg/Kg	5	10/11/2012 4:48:45 PM
Manganese	510	5.0		mg/Kg	50	10/11/2012 4:51:11 PM
Nickel	13	2.5		mg/Kg	5	10/11/2012 4:48:45 PM
Selenium	ND	12		mg/Kg	5	10/11/2012 4:48:45 PM
Silver	ND	1.2		mg/Kg	5	10/11/2012 4:48:45 PM
Vanadium	28	12		mg/Kg	5	10/11/2012 4:48:45 PM
Zinc	25	12		mg/Kg	5	10/11/2012 4:48:45 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Aniline	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Anthracene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Azobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/10/2012 5:59:23 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-7 (16-18')
Project: SWMU NO.1
Collection Date: 10/4/2012 2:40:00 PM
Lab ID: 1210372-015 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/10/2012 5:59:23 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Carbazole	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 5:59:23 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/10/2012 5:59:23 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/10/2012 5:59:23 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Chrysene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/10/2012 5:59:23 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/10/2012 5:59:23 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/10/2012 5:59:23 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/10/2012 5:59:23 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/10/2012 5:59:23 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 5:59:23 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/10/2012 5:59:23 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 5:59:23 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 5:59:23 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Fluorene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Isophorone	ND	0.50		mg/Kg	1	10/10/2012 5:59:23 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/10/2012 5:59:23 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Naphthalene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-7 (16-18')
Project: SWMU NO.1
Collection Date: 10/4/2012 2:40:00 PM
Lab ID: 1210372-015 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/10/2012 5:59:23 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/10/2012 5:59:23 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/10/2012 5:59:23 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/10/2012 5:59:23 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Phenol	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Pyrene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Pyridine	ND	0.50		mg/Kg	1	10/10/2012 5:59:23 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 5:59:23 AM
Surr: 2,4,6-Tribromophenol	73.2	21.3-145		%REC	1	10/10/2012 5:59:23 AM
Surr: 2-Fluorobiphenyl	61.1	20-131		%REC	1	10/10/2012 5:59:23 AM
Surr: 2-Fluorophenol	59.3	11.9-130		%REC	1	10/10/2012 5:59:23 AM
Surr: 4-Terphenyl-d14	63.3	25.1-149		%REC	1	10/10/2012 5:59:23 AM
Surr: Nitrobenzene-d5	57.8	25.6-137		%REC	1	10/10/2012 5:59:23 AM
Surr: Phenol-d5	65.2	20.3-132		%REC	1	10/10/2012 5:59:23 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00136	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Toluene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Ethylbenzene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Xylenes, Total	ND	0.00196		mg/Kg	1	10/9/2012 4:02:30 PM
Methyl tert-butyl ether (MTBE)	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,2,4-Trimethylbenzene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,3,5-Trimethylbenzene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,2-Dichloroethane (EDC)	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,2-Dibromoethane (EDB)	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Naphthalene	ND	0.00196		mg/Kg	1	10/9/2012 4:02:30 PM
1-Methylnaphthalene	ND	0.00393		mg/Kg	1	10/9/2012 4:02:30 PM
2-Methylnaphthalene	ND	0.00393		mg/Kg	1	10/9/2012 4:02:30 PM
Acetone	0.00987	0.00982		mg/Kg	1	10/9/2012 4:02:30 PM
Bromobenzene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Bromodichloromethane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Bromoform	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Bromomethane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
2-Butanone	ND	0.00982		mg/Kg	1	10/9/2012 4:02:30 PM
Carbon tetrachloride	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Chlorobenzene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Chloroethane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-015 **Matrix:** SOIL

Client Sample ID: SWMU 1-7 (16-18')
Collection Date: 10/4/2012 2:40:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Chloromethane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
2-Chlorotoluene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Carbon disulfide	ND	0.00982		mg/Kg	1	10/9/2012 4:02:30 PM
4-Chlorotoluene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
cis-1,2-DCE	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
cis-1,3-Dichloropropene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,2-Dibromo-3-chloropropane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Dibromochloromethane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Dibromomethane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,2-Dichlorobenzene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,3-Dichlorobenzene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,4-Dichlorobenzene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Dichlorodifluoromethane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,1-Dichloroethane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,1-Dichloroethene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,2-Dichloropropane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,3-Dichloropropane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
2,2-Dichloropropane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,1-Dichloropropene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Hexachlorobutadiene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Isopropylbenzene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
4-Isopropyltoluene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Methylene chloride	ND	0.00295		mg/Kg	1	10/9/2012 4:02:30 PM
n-Butylbenzene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
2-Hexanone	ND	0.00982		mg/Kg	1	10/9/2012 4:02:30 PM
n-Propylbenzene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
sec-Butylbenzene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Styrene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
4-Methyl-2-pentanone	ND	0.00982		mg/Kg	1	10/9/2012 4:02:30 PM
tert-Butylbenzene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,1,1,2-Tetrachloroethane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,1,2,2-Tetrachloroethane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Tetrachloroethene (PCE)	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
trans-1,2-DCE	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
trans-1,3-Dichloropropene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,2,3-Trichlorobenzene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,2,4-Trichlorobenzene	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,1,1-Trichloroethane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
1,1,2-Trichloroethane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Trichloroethene (TCE)	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Trichlorofluoromethane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-7 (16-18')
Project: SWMU NO.1
Collection Date: 10/4/2012 2:40:00 PM
Lab ID: 1210372-015 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Vinyl chloride	ND	0.000982		mg/Kg	1	10/9/2012 4:02:30 PM
Surr: 1,2-Dichloroethane-d4	89.0	70-130		%REC	1	10/9/2012 4:02:30 PM
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	1	10/9/2012 4:02:30 PM
Surr: Dibromofluoromethane	94.0	70-130		%REC	1	10/9/2012 4:02:30 PM
Surr: Toluene-d8	99.8	70-130		%REC	1	10/9/2012 4:02:30 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-016 **Matrix:** SOIL

Client Sample ID: SWMU 1-6 (10-11')
Collection Date: 10/4/2012 11:45:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/9/2012 11:36:49 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/9/2012 11:36:49 AM
Surr: DNOP	94.1	77.6-140		%REC	1	10/9/2012 11:36:49 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/9/2012 2:19:49 AM
Surr: BFB	101	84-116		%REC	1	10/9/2012 2:19:49 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/11/2012 3:39:21 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 4:56:13 PM
Arsenic	ND	12		mg/Kg	5	10/11/2012 4:56:13 PM
Barium	380	5.0		mg/Kg	50	10/11/2012 4:58:37 PM
Beryllium	ND	0.75		mg/Kg	5	10/11/2012 4:56:13 PM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 4:56:13 PM
Chromium	7.2	1.5		mg/Kg	5	10/11/2012 4:56:13 PM
Cobalt	3.8	1.5		mg/Kg	5	10/11/2012 4:56:13 PM
Iron	11000	500		mg/Kg	500	10/11/2012 5:01:02 PM
Lead	3.6	1.2		mg/Kg	5	10/11/2012 4:56:13 PM
Manganese	750	5.0		mg/Kg	50	10/11/2012 4:58:37 PM
Nickel	5.5	2.5		mg/Kg	5	10/11/2012 4:56:13 PM
Selenium	ND	12		mg/Kg	5	10/11/2012 4:56:13 PM
Silver	ND	1.2		mg/Kg	5	10/11/2012 4:56:13 PM
Vanadium	16	12		mg/Kg	5	10/11/2012 4:56:13 PM
Zinc	13	12		mg/Kg	5	10/11/2012 4:56:13 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Aniline	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Anthracene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Azobenzene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/10/2012 6:28:22 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (10-11')
Project: SWMU NO.1
Collection Date: 10/4/2012 11:45:00 AM
Lab ID: 1210372-016 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/10/2012 6:28:22 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Carbazole	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 6:28:22 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/10/2012 6:28:22 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/10/2012 6:28:22 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Chrysene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/10/2012 6:28:22 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/10/2012 6:28:22 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/10/2012 6:28:22 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/10/2012 6:28:22 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/10/2012 6:28:22 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 6:28:22 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/10/2012 6:28:22 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 6:28:22 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 6:28:22 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Fluorene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Isophorone	ND	0.50		mg/Kg	1	10/10/2012 6:28:22 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/10/2012 6:28:22 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Naphthalene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (10-11')
Project: SWMU NO.1
Collection Date: 10/4/2012 11:45:00 AM
Lab ID: 1210372-016 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/10/2012 6:28:22 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/10/2012 6:28:22 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/10/2012 6:28:22 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/10/2012 6:28:22 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Phenol	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Pyrene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Pyridine	ND	0.50		mg/Kg	1	10/10/2012 6:28:22 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 6:28:22 AM
Surr: 2,4,6-Tribromophenol	64.9	21.3-145		%REC	1	10/10/2012 6:28:22 AM
Surr: 2-Fluorobiphenyl	60.0	20-131		%REC	1	10/10/2012 6:28:22 AM
Surr: 2-Fluorophenol	60.5	11.9-130		%REC	1	10/10/2012 6:28:22 AM
Surr: 4-Terphenyl-d14	55.8	25.1-149		%REC	1	10/10/2012 6:28:22 AM
Surr: Nitrobenzene-d5	61.6	25.6-137		%REC	1	10/10/2012 6:28:22 AM
Surr: Phenol-d5	61.6	20.3-132		%REC	1	10/10/2012 6:28:22 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Toluene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Ethylbenzene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Xylenes, Total	ND	0.00213		mg/Kg	1	10/9/2012 4:33:16 PM
Methyl tert-butyl ether (MTBE)	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,2,4-Trimethylbenzene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,3,5-Trimethylbenzene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,2-Dichloroethane (EDC)	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,2-Dibromoethane (EDB)	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Naphthalene	ND	0.00213		mg/Kg	1	10/9/2012 4:33:16 PM
1-Methylnaphthalene	ND	0.00426		mg/Kg	1	10/9/2012 4:33:16 PM
2-Methylnaphthalene	ND	0.00426		mg/Kg	1	10/9/2012 4:33:16 PM
Acetone	0.0539	0.0107		mg/Kg	1	10/9/2012 4:33:16 PM
Bromobenzene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Bromodichloromethane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Bromoform	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Bromomethane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
2-Butanone	ND	0.0107		mg/Kg	1	10/9/2012 4:33:16 PM
Carbon tetrachloride	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Chlorobenzene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Chloroethane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (10-11')
Project: SWMU NO.1
Collection Date: 10/4/2012 11:45:00 AM
Lab ID: 1210372-016 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Chloromethane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
2-Chlorotoluene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Carbon disulfide	ND	0.0107		mg/Kg	1	10/9/2012 4:33:16 PM
4-Chlorotoluene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
cis-1,2-DCE	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
cis-1,3-Dichloropropene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,2-Dibromo-3-chloropropane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Dibromochloromethane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Dibromomethane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,2-Dichlorobenzene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,3-Dichlorobenzene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,4-Dichlorobenzene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Dichlorodifluoromethane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,1-Dichloroethane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,1-Dichloroethene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,2-Dichloropropane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,3-Dichloropropane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
2,2-Dichloropropane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,1-Dichloropropene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Hexachlorobutadiene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Isopropylbenzene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
4-Isopropyltoluene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Methylene chloride	ND	0.00320		mg/Kg	1	10/9/2012 4:33:16 PM
n-Butylbenzene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
2-Hexanone	ND	0.0107		mg/Kg	1	10/9/2012 4:33:16 PM
n-Propylbenzene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
sec-Butylbenzene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Styrene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
4-Methyl-2-pentanone	ND	0.0107		mg/Kg	1	10/9/2012 4:33:16 PM
tert-Butylbenzene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,1,1,2-Tetrachloroethane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,1,2,2-Tetrachloroethane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Tetrachloroethene (PCE)	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
trans-1,2-DCE	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
trans-1,3-Dichloropropene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,2,3-Trichlorobenzene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,2,4-Trichlorobenzene	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,1,1-Trichloroethane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
1,1,2-Trichloroethane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Trichloroethene (TCE)	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Trichlorofluoromethane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-016 **Matrix:** SOIL

Client Sample ID: SWMU 1-6 (10-11')
Collection Date: 10/4/2012 11:45:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Vinyl chloride	ND	0.00107		mg/Kg	1	10/9/2012 4:33:16 PM
Surr: 1,2-Dichloroethane-d4	90.7	70-130		%REC	1	10/9/2012 4:33:16 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	10/9/2012 4:33:16 PM
Surr: Dibromofluoromethane	93.6	70-130		%REC	1	10/9/2012 4:33:16 PM
Surr: Toluene-d8	89.3	70-130		%REC	1	10/9/2012 4:33:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (11-12')
Project: SWMU NO.1
Collection Date: 10/4/2012 11:55:00 AM
Lab ID: 1210372-017 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/9/2012 10:44:56 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/9/2012 10:44:56 AM
Surr: DNOP	101	77.6-140		%REC	1	10/9/2012 10:44:56 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/9/2012 2:48:36 AM
Surr: BFB	103	84-116		%REC	1	10/9/2012 2:48:36 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/11/2012 3:41:07 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 5:03:56 PM
Arsenic	ND	12		mg/Kg	5	10/11/2012 5:03:56 PM
Barium	700	5.0		mg/Kg	50	10/11/2012 5:12:21 PM
Beryllium	0.96	0.75		mg/Kg	5	10/11/2012 5:03:56 PM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 5:03:56 PM
Chromium	14	1.5		mg/Kg	5	10/11/2012 5:03:56 PM
Cobalt	6.2	1.5		mg/Kg	5	10/11/2012 5:03:56 PM
Iron	18000	500		mg/Kg	500	10/11/2012 5:16:24 PM
Lead	ND	1.2		mg/Kg	5	10/11/2012 5:03:56 PM
Manganese	480	5.0		mg/Kg	50	10/11/2012 5:12:21 PM
Nickel	12	2.5		mg/Kg	5	10/11/2012 5:03:56 PM
Selenium	ND	12		mg/Kg	5	10/11/2012 5:03:56 PM
Silver	ND	1.2		mg/Kg	5	10/11/2012 5:03:56 PM
Vanadium	16	12		mg/Kg	5	10/11/2012 5:03:56 PM
Zinc	25	12		mg/Kg	5	10/11/2012 5:03:56 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Aniline	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Anthracene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Azobenzene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/10/2012 6:57:20 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-017 **Matrix:** SOIL

Client Sample ID: SWMU 1-6 (11-12')
Collection Date: 10/4/2012 11:55:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/10/2012 6:57:20 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Carbazole	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 6:57:20 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/10/2012 6:57:20 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/10/2012 6:57:20 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Chrysene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/10/2012 6:57:20 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/10/2012 6:57:20 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/10/2012 6:57:20 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/10/2012 6:57:20 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/10/2012 6:57:20 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 6:57:20 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/10/2012 6:57:20 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 6:57:20 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 6:57:20 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Fluorene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Isophorone	ND	0.50		mg/Kg	1	10/10/2012 6:57:20 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/10/2012 6:57:20 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Naphthalene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-017 **Matrix:** SOIL

Client Sample ID: SWMU 1-6 (11-12')
Collection Date: 10/4/2012 11:55:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/10/2012 6:57:20 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/10/2012 6:57:20 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/10/2012 6:57:20 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/10/2012 6:57:20 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Phenol	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Pyrene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Pyridine	ND	0.50		mg/Kg	1	10/10/2012 6:57:20 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 6:57:20 AM
Surr: 2,4,6-Tribromophenol	94.5	21.3-145		%REC	1	10/10/2012 6:57:20 AM
Surr: 2-Fluorobiphenyl	86.5	20-131		%REC	1	10/10/2012 6:57:20 AM
Surr: 2-Fluorophenol	82.6	11.9-130		%REC	1	10/10/2012 6:57:20 AM
Surr: 4-Terphenyl-d14	77.7	25.1-149		%REC	1	10/10/2012 6:57:20 AM
Surr: Nitrobenzene-d5	92.7	25.6-137		%REC	1	10/10/2012 6:57:20 AM
Surr: Phenol-d5	86.3	20.3-132		%REC	1	10/10/2012 6:57:20 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Toluene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Ethylbenzene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Xylenes, Total	ND	0.00273		mg/Kg	1	10/9/2012 5:04:01 PM
Methyl tert-butyl ether (MTBE)	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,2,4-Trimethylbenzene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,3,5-Trimethylbenzene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,2-Dichloroethane (EDC)	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,2-Dibromoethane (EDB)	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Naphthalene	ND	0.00273		mg/Kg	1	10/9/2012 5:04:01 PM
1-Methylnaphthalene	ND	0.00545		mg/Kg	1	10/9/2012 5:04:01 PM
2-Methylnaphthalene	ND	0.00545		mg/Kg	1	10/9/2012 5:04:01 PM
Acetone	ND	0.0136		mg/Kg	1	10/9/2012 5:04:01 PM
Bromobenzene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Bromodichloromethane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Bromoform	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Bromomethane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
2-Butanone	ND	0.0136		mg/Kg	1	10/9/2012 5:04:01 PM
Carbon tetrachloride	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Chlorobenzene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Chloroethane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-017 **Matrix:** SOIL

Client Sample ID: SWMU 1-6 (11-12')
Collection Date: 10/4/2012 11:55:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Chloromethane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
2-Chlorotoluene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Carbon disulfide	ND	0.0136		mg/Kg	1	10/9/2012 5:04:01 PM
4-Chlorotoluene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
cis-1,2-DCE	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
cis-1,3-Dichloropropene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,2-Dibromo-3-chloropropane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Dibromochloromethane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Dibromomethane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,2-Dichlorobenzene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,3-Dichlorobenzene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,4-Dichlorobenzene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Dichlorodifluoromethane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,1-Dichloroethane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,1-Dichloroethene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,2-Dichloropropane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,3-Dichloropropane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
2,2-Dichloropropane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,1-Dichloropropene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Hexachlorobutadiene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Isopropylbenzene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
4-Isopropyltoluene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Methylene chloride	ND	0.00409		mg/Kg	1	10/9/2012 5:04:01 PM
n-Butylbenzene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
2-Hexanone	ND	0.0136		mg/Kg	1	10/9/2012 5:04:01 PM
n-Propylbenzene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
sec-Butylbenzene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Styrene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
4-Methyl-2-pentanone	ND	0.0136		mg/Kg	1	10/9/2012 5:04:01 PM
tert-Butylbenzene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,1,1,2-Tetrachloroethane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,1,2,2-Tetrachloroethane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Tetrachloroethene (PCE)	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
trans-1,2-DCE	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
trans-1,3-Dichloropropene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,2,3-Trichlorobenzene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,2,4-Trichlorobenzene	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,1,1-Trichloroethane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
1,1,2-Trichloroethane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Trichloroethene (TCE)	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Trichlorofluoromethane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM

Qualifiers:

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

Analytical Report
Lab Order **1210372**
Date Reported: **11/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (11-12')
Project: SWMU NO.1
Collection Date: 10/4/2012 11:55:00 AM
Lab ID: 1210372-017 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Vinyl chloride	ND	0.00136		mg/Kg	1	10/9/2012 5:04:01 PM
Surr: 1,2-Dichloroethane-d4	97.9	70-130		%REC	1	10/9/2012 5:04:01 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	10/9/2012 5:04:01 PM
Surr: Dibromofluoromethane	102	70-130		%REC	1	10/9/2012 5:04:01 PM
Surr: Toluene-d8	101	70-130		%REC	1	10/9/2012 5:04:01 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-018 **Matrix:** SOIL

Client Sample ID: SWMU 1-7 (12-14')
Collection Date: 10/4/2012 1:55:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/9/2012 11:09:39 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/9/2012 11:09:39 AM
Surr: DNOP	101	77.6-140		%REC	1	10/9/2012 11:09:39 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/9/2012 3:17:22 AM
Surr: BFB	107	84-116		%REC	1	10/9/2012 3:17:22 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 4:14:37 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 5:21:56 PM
Arsenic	ND	12		mg/Kg	5	10/11/2012 5:21:56 PM
Barium	87	0.50		mg/Kg	5	10/11/2012 5:21:56 PM
Beryllium	1.1	0.75		mg/Kg	5	10/11/2012 5:21:56 PM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 5:21:56 PM
Chromium	12	1.5		mg/Kg	5	10/11/2012 5:21:56 PM
Cobalt	5.4	1.5		mg/Kg	5	10/11/2012 5:21:56 PM
Iron	16000	500		mg/Kg	500	10/11/2012 5:26:48 PM
Lead	4.0	1.2		mg/Kg	5	10/11/2012 5:21:56 PM
Manganese	360	5.0		mg/Kg	50	10/11/2012 5:24:24 PM
Nickel	9.3	2.5		mg/Kg	5	10/11/2012 5:21:56 PM
Selenium	ND	12		mg/Kg	5	10/11/2012 5:21:56 PM
Silver	ND	1.2		mg/Kg	5	10/11/2012 5:21:56 PM
Vanadium	20	12		mg/Kg	5	10/11/2012 5:21:56 PM
Zinc	18	12		mg/Kg	5	10/11/2012 5:21:56 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Aniline	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Anthracene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Azobenzene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/10/2012 7:26:18 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-018 **Matrix:** SOIL

Client Sample ID: SWMU 1-7 (12-14')
Collection Date: 10/4/2012 1:55:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/10/2012 7:26:18 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Carbazole	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 7:26:18 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/10/2012 7:26:18 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/10/2012 7:26:18 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Chrysene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/10/2012 7:26:18 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/10/2012 7:26:18 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/10/2012 7:26:18 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/10/2012 7:26:18 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/10/2012 7:26:18 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 7:26:18 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/10/2012 7:26:18 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 7:26:18 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 7:26:18 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Fluorene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Isophorone	ND	0.50		mg/Kg	1	10/10/2012 7:26:18 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/10/2012 7:26:18 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Naphthalene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-018 **Matrix:** SOIL

Client Sample ID: SWMU 1-7 (12-14')
Collection Date: 10/4/2012 1:55:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/10/2012 7:26:18 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/10/2012 7:26:18 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/10/2012 7:26:18 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/10/2012 7:26:18 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Phenol	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Pyrene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Pyridine	ND	0.50		mg/Kg	1	10/10/2012 7:26:18 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 7:26:18 AM
Surr: 2,4,6-Tribromophenol	89.5	21.3-145		%REC	1	10/10/2012 7:26:18 AM
Surr: 2-Fluorobiphenyl	85.6	20-131		%REC	1	10/10/2012 7:26:18 AM
Surr: 2-Fluorophenol	85.6	11.9-130		%REC	1	10/10/2012 7:26:18 AM
Surr: 4-Terphenyl-d14	76.0	25.1-149		%REC	1	10/10/2012 7:26:18 AM
Surr: Nitrobenzene-d5	91.1	25.6-137		%REC	1	10/10/2012 7:26:18 AM
Surr: Phenol-d5	90.8	20.3-132		%REC	1	10/10/2012 7:26:18 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Toluene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Ethylbenzene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Xylenes, Total	ND	0.00237		mg/Kg	1	10/9/2012 5:34:52 PM
Methyl tert-butyl ether (MTBE)	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,2,4-Trimethylbenzene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,3,5-Trimethylbenzene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,2-Dichloroethane (EDC)	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,2-Dibromoethane (EDB)	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Naphthalene	ND	0.00237		mg/Kg	1	10/9/2012 5:34:52 PM
1-Methylnaphthalene	ND	0.00475		mg/Kg	1	10/9/2012 5:34:52 PM
2-Methylnaphthalene	ND	0.00475		mg/Kg	1	10/9/2012 5:34:52 PM
Acetone	0.0138	0.0119		mg/Kg	1	10/9/2012 5:34:52 PM
Bromobenzene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Bromodichloromethane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Bromoform	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Bromomethane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
2-Butanone	ND	0.0119		mg/Kg	1	10/9/2012 5:34:52 PM
Carbon tetrachloride	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Chlorobenzene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Chloroethane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-7 (12-14')
Project: SWMU NO.1
Collection Date: 10/4/2012 1:55:00 PM
Lab ID: 1210372-018 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Chloromethane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
2-Chlorotoluene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Carbon disulfide	ND	0.0119		mg/Kg	1	10/9/2012 5:34:52 PM
4-Chlorotoluene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
cis-1,2-DCE	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
cis-1,3-Dichloropropene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,2-Dibromo-3-chloropropane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Dibromochloromethane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Dibromomethane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,2-Dichlorobenzene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,3-Dichlorobenzene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,4-Dichlorobenzene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Dichlorodifluoromethane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,1-Dichloroethane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,1-Dichloroethene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,2-Dichloropropane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,3-Dichloropropane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
2,2-Dichloropropane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,1-Dichloropropene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Hexachlorobutadiene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Isopropylbenzene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
4-Isopropyltoluene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Methylene chloride	ND	0.00356		mg/Kg	1	10/9/2012 5:34:52 PM
n-Butylbenzene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
2-Hexanone	ND	0.0119		mg/Kg	1	10/9/2012 5:34:52 PM
n-Propylbenzene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
sec-Butylbenzene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Styrene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
4-Methyl-2-pentanone	ND	0.0119		mg/Kg	1	10/9/2012 5:34:52 PM
tert-Butylbenzene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,1,1,2-Tetrachloroethane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,1,2,2-Tetrachloroethane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Tetrachloroethene (PCE)	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
trans-1,2-DCE	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
trans-1,3-Dichloropropene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,2,3-Trichlorobenzene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,2,4-Trichlorobenzene	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,1,1-Trichloroethane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
1,1,2-Trichloroethane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Trichloroethene (TCE)	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Trichlorofluoromethane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-7 (12-14')
Project: SWMU NO.1
Collection Date: 10/4/2012 1:55:00 PM
Lab ID: 1210372-018 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Vinyl chloride	ND	0.00119		mg/Kg	1	10/9/2012 5:34:52 PM
Surr: 1,2-Dichloroethane-d4	90.9	70-130		%REC	1	10/9/2012 5:34:52 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	10/9/2012 5:34:52 PM
Surr: Dibromofluoromethane	92.3	70-130		%REC	1	10/9/2012 5:34:52 PM
Surr: Toluene-d8	95.2	70-130		%REC	1	10/9/2012 5:34:52 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-019 **Matrix:** SOIL

Client Sample ID: SWMU 1-7 (14-16')
Collection Date: 10/4/2012 2:15:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/9/2012 11:34:18 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/9/2012 11:34:18 AM
Surr: DNOP	105	77.6-140		%REC	1	10/9/2012 11:34:18 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/9/2012 3:46:11 AM
Surr: BFB	107	84-116		%REC	1	10/9/2012 3:46:11 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 4:16:25 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 5:29:25 PM
Arsenic	ND	12		mg/Kg	5	10/11/2012 5:29:25 PM
Barium	290	5.0		mg/Kg	50	10/11/2012 5:31:52 PM
Beryllium	0.95	0.75		mg/Kg	5	10/11/2012 5:29:25 PM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 5:29:25 PM
Chromium	11	1.5		mg/Kg	5	10/11/2012 5:29:25 PM
Cobalt	6.0	1.5		mg/Kg	5	10/11/2012 5:29:25 PM
Iron	15000	500		mg/Kg	500	10/11/2012 5:34:18 PM
Lead	3.3	1.2		mg/Kg	5	10/11/2012 5:29:25 PM
Manganese	790	5.0		mg/Kg	50	10/11/2012 5:31:52 PM
Nickel	9.7	2.5		mg/Kg	5	10/11/2012 5:29:25 PM
Selenium	ND	12		mg/Kg	5	10/11/2012 5:29:25 PM
Silver	ND	1.2		mg/Kg	5	10/11/2012 5:29:25 PM
Vanadium	16	12		mg/Kg	5	10/11/2012 5:29:25 PM
Zinc	18	12		mg/Kg	5	10/11/2012 5:29:25 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Aniline	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Anthracene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Azobenzene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Benzoic acid	ND	0.51		mg/Kg	1	10/10/2012 7:55:14 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-7 (14-16')
Project: SWMU NO.1
Collection Date: 10/4/2012 2:15:00 PM
Lab ID: 1210372-019 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.51		mg/Kg	1	10/10/2012 7:55:14 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Carbazole	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
4-Chloro-3-methylphenol	ND	0.51		mg/Kg	1	10/10/2012 7:55:14 AM
4-Chloroaniline	ND	0.51		mg/Kg	1	10/10/2012 7:55:14 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/10/2012 7:55:14 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Chrysene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Di-n-butyl phthalate	ND	0.51		mg/Kg	1	10/10/2012 7:55:14 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/10/2012 7:55:14 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/10/2012 7:55:14 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/10/2012 7:55:14 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/10/2012 7:55:14 AM
4,6-Dinitro-2-methylphenol	ND	0.51		mg/Kg	1	10/10/2012 7:55:14 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/10/2012 7:55:14 AM
2,4-Dinitrotoluene	ND	0.51		mg/Kg	1	10/10/2012 7:55:14 AM
2,6-Dinitrotoluene	ND	0.51		mg/Kg	1	10/10/2012 7:55:14 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Fluorene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Isophorone	ND	0.51		mg/Kg	1	10/10/2012 7:55:14 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
2-Methylphenol	ND	0.51		mg/Kg	1	10/10/2012 7:55:14 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Naphthalene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-7 (14-16')
Project: SWMU NO.1
Collection Date: 10/4/2012 2:15:00 PM
Lab ID: 1210372-019 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/10/2012 7:55:14 AM
Nitrobenzene	ND	0.51		mg/Kg	1	10/10/2012 7:55:14 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/10/2012 7:55:14 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/10/2012 7:55:14 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Phenol	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Pyrene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Pyridine	ND	0.51		mg/Kg	1	10/10/2012 7:55:14 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 7:55:14 AM
Surr: 2,4,6-Tribromophenol	55.6	21.3-145		%REC	1	10/10/2012 7:55:14 AM
Surr: 2-Fluorobiphenyl	48.8	20-131		%REC	1	10/10/2012 7:55:14 AM
Surr: 2-Fluorophenol	45.8	11.9-130		%REC	1	10/10/2012 7:55:14 AM
Surr: 4-Terphenyl-d14	53.3	25.1-149		%REC	1	10/10/2012 7:55:14 AM
Surr: Nitrobenzene-d5	48.9	25.6-137		%REC	1	10/10/2012 7:55:14 AM
Surr: Phenol-d5	51.9	20.3-132		%REC	1	10/10/2012 7:55:14 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Toluene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Ethylbenzene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Xylenes, Total	ND	0.00291		mg/Kg	1	10/9/2012 6:05:43 PM
Methyl tert-butyl ether (MTBE)	0.00190	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,2,4-Trimethylbenzene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,3,5-Trimethylbenzene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,2-Dichloroethane (EDC)	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,2-Dibromoethane (EDB)	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Naphthalene	ND	0.00291		mg/Kg	1	10/9/2012 6:05:43 PM
1-Methylnaphthalene	ND	0.00581		mg/Kg	1	10/9/2012 6:05:43 PM
2-Methylnaphthalene	ND	0.00581		mg/Kg	1	10/9/2012 6:05:43 PM
Acetone	ND	0.0145		mg/Kg	1	10/9/2012 6:05:43 PM
Bromobenzene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Bromodichloromethane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Bromoform	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Bromomethane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
2-Butanone	ND	0.0145		mg/Kg	1	10/9/2012 6:05:43 PM
Carbon tetrachloride	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Chlorobenzene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Chloroethane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-019 **Matrix:** SOIL

Client Sample ID: SWMU 1-7 (14-16')
Collection Date: 10/4/2012 2:15:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Chloromethane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
2-Chlorotoluene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Carbon disulfide	ND	0.0145		mg/Kg	1	10/9/2012 6:05:43 PM
4-Chlorotoluene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
cis-1,2-DCE	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
cis-1,3-Dichloropropene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,2-Dibromo-3-chloropropane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Dibromochloromethane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Dibromomethane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,2-Dichlorobenzene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,3-Dichlorobenzene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,4-Dichlorobenzene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Dichlorodifluoromethane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,1-Dichloroethane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,1-Dichloroethene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,2-Dichloropropane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,3-Dichloropropane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
2,2-Dichloropropane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,1-Dichloropropene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Hexachlorobutadiene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Isopropylbenzene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
4-Isopropyltoluene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Methylene chloride	ND	0.00436		mg/Kg	1	10/9/2012 6:05:43 PM
n-Butylbenzene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
2-Hexanone	ND	0.0145		mg/Kg	1	10/9/2012 6:05:43 PM
n-Propylbenzene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
sec-Butylbenzene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Styrene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
4-Methyl-2-pentanone	ND	0.0145		mg/Kg	1	10/9/2012 6:05:43 PM
tert-Butylbenzene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,1,1,2-Tetrachloroethane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,1,2,2-Tetrachloroethane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Tetrachloroethene (PCE)	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
trans-1,2-DCE	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
trans-1,3-Dichloropropene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,2,3-Trichlorobenzene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,2,4-Trichlorobenzene	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,1,1-Trichloroethane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
1,1,2-Trichloroethane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Trichloroethene (TCE)	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Trichlorofluoromethane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-7 (14-16')
Project: SWMU NO.1
Collection Date: 10/4/2012 2:15:00 PM
Lab ID: 1210372-019 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Vinyl chloride	ND	0.00145		mg/Kg	1	10/9/2012 6:05:43 PM
Surr: 1,2-Dichloroethane-d4	98.8	70-130		%REC	1	10/9/2012 6:05:43 PM
Surr: 4-Bromofluorobenzene	88.4	70-130		%REC	1	10/9/2012 6:05:43 PM
Surr: Dibromofluoromethane	101	70-130		%REC	1	10/9/2012 6:05:43 PM
Surr: Toluene-d8	97.0	70-130		%REC	1	10/9/2012 6:05:43 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-020 **Matrix:** SOIL

Client Sample ID: SWMU 1-6 (2-4')
Collection Date: 10/4/2012 10:55:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/9/2012 9:05:06 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/9/2012 9:05:06 AM
Surr: DNOP	104	77.6-140		%REC	1	10/9/2012 9:05:06 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/9/2012 4:14:57 AM
Surr: BFB	102	84-116		%REC	1	10/9/2012 4:14:57 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 4:18:12 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	25		mg/Kg	10	10/15/2012 10:16:58 AM
Arsenic	ND	25		mg/Kg	10	10/15/2012 10:16:58 AM
Barium	660	5.0		mg/Kg	50	10/11/2012 5:39:21 PM
Beryllium	ND	1.5		mg/Kg	10	10/15/2012 10:16:58 AM
Cadmium	ND	1.0		mg/Kg	10	10/15/2012 10:16:58 AM
Chromium	6.1	3.0		mg/Kg	10	10/15/2012 10:16:58 AM
Cobalt	3.5	3.0		mg/Kg	10	10/15/2012 10:16:58 AM
Iron	9600	500		mg/Kg	500	10/11/2012 5:49:22 PM
Lead	5.4	2.5		mg/Kg	10	10/15/2012 10:16:58 AM
Manganese	1000	5.0		mg/Kg	50	10/11/2012 5:39:21 PM
Nickel	ND	5.0		mg/Kg	10	10/15/2012 10:16:58 AM
Selenium	ND	25		mg/Kg	10	10/15/2012 10:35:25 AM
Silver	ND	2.5		mg/Kg	10	10/15/2012 10:16:58 AM
Vanadium	ND	25		mg/Kg	10	10/15/2012 10:16:58 AM
Zinc	ND	25		mg/Kg	10	10/15/2012 10:16:58 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Aniline	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Anthracene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Azobenzene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/10/2012 8:24:14 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (2-4')
Project: SWMU NO.1
Collection Date: 10/4/2012 10:55:00 AM
Lab ID: 1210372-020 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/10/2012 8:24:14 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Carbazole	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 8:24:14 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/10/2012 8:24:14 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/10/2012 8:24:14 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Chrysene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/10/2012 8:24:14 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/10/2012 8:24:14 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/10/2012 8:24:14 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/10/2012 8:24:14 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/10/2012 8:24:14 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 8:24:14 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/10/2012 8:24:14 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 8:24:14 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 8:24:14 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Fluorene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Isophorone	ND	0.50		mg/Kg	1	10/10/2012 8:24:14 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/10/2012 8:24:14 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Naphthalene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (2-4')
Project: SWMU NO.1
Collection Date: 10/4/2012 10:55:00 AM
Lab ID: 1210372-020 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/10/2012 8:24:14 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/10/2012 8:24:14 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/10/2012 8:24:14 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/10/2012 8:24:14 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Phenol	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Pyrene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Pyridine	ND	0.50		mg/Kg	1	10/10/2012 8:24:14 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 8:24:14 AM
Surr: 2,4,6-Tribromophenol	82.7	21.3-145		%REC	1	10/10/2012 8:24:14 AM
Surr: 2-Fluorobiphenyl	78.3	20-131		%REC	1	10/10/2012 8:24:14 AM
Surr: 2-Fluorophenol	86.8	11.9-130		%REC	1	10/10/2012 8:24:14 AM
Surr: 4-Terphenyl-d14	72.3	25.1-149		%REC	1	10/10/2012 8:24:14 AM
Surr: Nitrobenzene-d5	88.2	25.6-137		%REC	1	10/10/2012 8:24:14 AM
Surr: Phenol-d5	89.0	20.3-132		%REC	1	10/10/2012 8:24:14 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Toluene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Ethylbenzene	0.00563	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Xylenes, Total	0.0431	0.00213		mg/Kg	1	10/9/2012 6:36:32 PM
Methyl tert-butyl ether (MTBE)	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,2,4-Trimethylbenzene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,3,5-Trimethylbenzene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,2-Dichloroethane (EDC)	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,2-Dibromoethane (EDB)	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Naphthalene	ND	0.00213		mg/Kg	1	10/9/2012 6:36:32 PM
1-Methylnaphthalene	ND	0.00427		mg/Kg	1	10/9/2012 6:36:32 PM
2-Methylnaphthalene	ND	0.00427		mg/Kg	1	10/9/2012 6:36:32 PM
Acetone	0.477	0.0107	E	mg/Kg	1	10/9/2012 6:36:32 PM
Bromobenzene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Bromodichloromethane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Bromoform	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Bromomethane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
2-Butanone	ND	0.0107		mg/Kg	1	10/9/2012 6:36:32 PM
Carbon tetrachloride	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Chlorobenzene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Chloroethane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (2-4')
Project: SWMU NO.1
Collection Date: 10/4/2012 10:55:00 AM
Lab ID: 1210372-020 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Chloromethane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
2-Chlorotoluene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Carbon disulfide	ND	0.0107		mg/Kg	1	10/9/2012 6:36:32 PM
4-Chlorotoluene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
cis-1,2-DCE	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
cis-1,3-Dichloropropene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,2-Dibromo-3-chloropropane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Dibromochloromethane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Dibromomethane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,2-Dichlorobenzene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,3-Dichlorobenzene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,4-Dichlorobenzene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Dichlorodifluoromethane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,1-Dichloroethane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,1-Dichloroethene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,2-Dichloropropane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,3-Dichloropropane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
2,2-Dichloropropane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,1-Dichloropropene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Hexachlorobutadiene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Isopropylbenzene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
4-Isopropyltoluene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Methylene chloride	ND	0.00320		mg/Kg	1	10/9/2012 6:36:32 PM
n-Butylbenzene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
2-Hexanone	ND	0.0107		mg/Kg	1	10/9/2012 6:36:32 PM
n-Propylbenzene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
sec-Butylbenzene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Styrene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
4-Methyl-2-pentanone	ND	0.0107		mg/Kg	1	10/9/2012 6:36:32 PM
tert-Butylbenzene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,1,1,2-Tetrachloroethane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,1,2,2-Tetrachloroethane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Tetrachloroethene (PCE)	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
trans-1,2-DCE	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
trans-1,3-Dichloropropene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,2,3-Trichlorobenzene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,2,4-Trichlorobenzene	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,1,1-Trichloroethane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
1,1,2-Trichloroethane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Trichloroethene (TCE)	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Trichlorofluoromethane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-020 **Matrix:** SOIL

Client Sample ID: SWMU 1-6 (2-4')
Collection Date: 10/4/2012 10:55:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Vinyl chloride	ND	0.00107		mg/Kg	1	10/9/2012 6:36:32 PM
Surr: 1,2-Dichloroethane-d4	88.8	70-130		%REC	1	10/9/2012 6:36:32 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	10/9/2012 6:36:32 PM
Surr: Dibromofluoromethane	97.7	70-130		%REC	1	10/9/2012 6:36:32 PM
Surr: Toluene-d8	106	70-130		%REC	1	10/9/2012 6:36:32 PM

Qualifiers:

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (2-4') DUP
Project: SWMU NO.1
Collection Date: 10/4/2012 10:55:00 AM
Lab ID: 1210372-021 **Matrix:** SOIL
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/9/2012 9:30:03 AM
Motor Oil Range Organics (MRO)	ND	52		mg/Kg	1	10/9/2012 9:30:03 AM
Surr: DNOP	104	77.6-140		%REC	1	10/9/2012 9:30:03 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/9/2012 4:43:44 AM
Surr: BFB	102	84-116		%REC	1	10/9/2012 4:43:44 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 4:20:01 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 5:52:15 PM
Arsenic	ND	12		mg/Kg	5	10/15/2012 10:19:16 AM
Barium	930	5.0		mg/Kg	50	10/11/2012 5:57:34 PM
Beryllium	ND	0.75		mg/Kg	5	10/11/2012 5:52:15 PM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 5:52:15 PM
Chromium	7.0	1.5		mg/Kg	5	10/15/2012 10:19:16 AM
Cobalt	3.9	1.5		mg/Kg	5	10/11/2012 5:52:15 PM
Iron	10000	500		mg/Kg	500	10/11/2012 6:00:01 PM
Lead	5.0	1.2		mg/Kg	5	10/11/2012 5:52:15 PM
Manganese	830	5.0		mg/Kg	50	10/11/2012 5:57:34 PM
Nickel	5.2	2.5		mg/Kg	5	10/11/2012 5:52:15 PM
Selenium	ND	12		mg/Kg	5	10/15/2012 10:37:40 AM
Silver	ND	1.2		mg/Kg	5	10/11/2012 5:52:15 PM
Vanadium	24	12		mg/Kg	5	10/11/2012 5:52:15 PM
Zinc	13	12		mg/Kg	5	10/15/2012 10:19:16 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Aniline	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Anthracene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Azobenzene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/10/2012 8:53:16 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (2-4') DUP
Project: SWMU NO.1
Collection Date: 10/4/2012 10:55:00 AM
Lab ID: 1210372-021 **Matrix:** SOIL
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/10/2012 8:53:16 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Carbazole	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 8:53:16 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/10/2012 8:53:16 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/10/2012 8:53:16 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Chrysene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/10/2012 8:53:16 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/10/2012 8:53:16 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/10/2012 8:53:16 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/10/2012 8:53:16 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/10/2012 8:53:16 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 8:53:16 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/10/2012 8:53:16 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 8:53:16 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 8:53:16 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Fluorene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Isophorone	ND	0.50		mg/Kg	1	10/10/2012 8:53:16 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/10/2012 8:53:16 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Naphthalene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (2-4') DUP
Project: SWMU NO.1
Collection Date: 10/4/2012 10:55:00 AM
Lab ID: 1210372-021 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/10/2012 8:53:16 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/10/2012 8:53:16 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/10/2012 8:53:16 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/10/2012 8:53:16 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Phenol	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Pyrene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Pyridine	ND	0.50		mg/Kg	1	10/10/2012 8:53:16 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 8:53:16 AM
Surr: 2,4,6-Tribromophenol	75.2	21.3-145		%REC	1	10/10/2012 8:53:16 AM
Surr: 2-Fluorobiphenyl	81.9	20-131		%REC	1	10/10/2012 8:53:16 AM
Surr: 2-Fluorophenol	64.5	11.9-130		%REC	1	10/10/2012 8:53:16 AM
Surr: 4-Terphenyl-d14	74.1	25.1-149		%REC	1	10/10/2012 8:53:16 AM
Surr: Nitrobenzene-d5	74.2	25.6-137		%REC	1	10/10/2012 8:53:16 AM
Surr: Phenol-d5	74.8	20.3-132		%REC	1	10/10/2012 8:53:16 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Toluene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Ethylbenzene	0.00112	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Xylenes, Total	0.00863	0.00170		mg/Kg	1	10/9/2012 7:07:19 PM
Methyl tert-butyl ether (MTBE)	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,2,4-Trimethylbenzene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,3,5-Trimethylbenzene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,2-Dichloroethane (EDC)	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,2-Dibromoethane (EDB)	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Naphthalene	ND	0.00170		mg/Kg	1	10/9/2012 7:07:19 PM
1-Methylnaphthalene	ND	0.00341		mg/Kg	1	10/9/2012 7:07:19 PM
2-Methylnaphthalene	ND	0.00341		mg/Kg	1	10/9/2012 7:07:19 PM
Acetone	0.460	0.00852	E	mg/Kg	1	10/9/2012 7:07:19 PM
Bromobenzene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Bromodichloromethane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Bromoform	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Bromomethane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
2-Butanone	ND	0.00852		mg/Kg	1	10/9/2012 7:07:19 PM
Carbon tetrachloride	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Chlorobenzene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Chloroethane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (2-4') DUP
Project: SWMU NO.1
Collection Date: 10/4/2012 10:55:00 AM
Lab ID: 1210372-021 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Chloromethane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
2-Chlorotoluene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Carbon disulfide	ND	0.00852		mg/Kg	1	10/9/2012 7:07:19 PM
4-Chlorotoluene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
cis-1,2-DCE	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
cis-1,3-Dichloropropene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,2-Dibromo-3-chloropropane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Dibromochloromethane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Dibromomethane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,2-Dichlorobenzene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,3-Dichlorobenzene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,4-Dichlorobenzene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Dichlorodifluoromethane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,1-Dichloroethane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,1-Dichloroethene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,2-Dichloropropane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,3-Dichloropropane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
2,2-Dichloropropane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,1-Dichloropropene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Hexachlorobutadiene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Isopropylbenzene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
4-Isopropyltoluene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Methylene chloride	ND	0.00256		mg/Kg	1	10/9/2012 7:07:19 PM
n-Butylbenzene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
2-Hexanone	ND	0.00852		mg/Kg	1	10/9/2012 7:07:19 PM
n-Propylbenzene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
sec-Butylbenzene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Styrene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
4-Methyl-2-pentanone	ND	0.00852		mg/Kg	1	10/9/2012 7:07:19 PM
tert-Butylbenzene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,1,1,2-Tetrachloroethane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,1,2,2-Tetrachloroethane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Tetrachloroethene (PCE)	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
trans-1,2-DCE	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
trans-1,3-Dichloropropene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,2,3-Trichlorobenzene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,2,4-Trichlorobenzene	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,1,1-Trichloroethane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
1,1,2-Trichloroethane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Trichloroethene (TCE)	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Trichlorofluoromethane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (2-4') DUP
Project: SWMU NO.1
Collection Date: 10/4/2012 10:55:00 AM
Lab ID: 1210372-021 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Vinyl chloride	ND	0.000852		mg/Kg	1	10/9/2012 7:07:19 PM
Surr: 1,2-Dichloroethane-d4	92.4	70-130		%REC	1	10/9/2012 7:07:19 PM
Surr: 4-Bromofluorobenzene	96.6	70-130		%REC	1	10/9/2012 7:07:19 PM
Surr: Dibromofluoromethane	97.8	70-130		%REC	1	10/9/2012 7:07:19 PM
Surr: Toluene-d8	97.0	70-130		%REC	1	10/9/2012 7:07:19 PM

Qualifiers:

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

Analytical Report
Lab Order **1210372**
Date Reported: **11/14/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-022 **Matrix:** SOIL

Client Sample ID: SWMU 1-6 (4-6')
Collection Date: 10/4/2012 11:15:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/9/2012 9:55:06 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/9/2012 9:55:06 AM
Surr: DNOP	102	77.6-140		%REC	1	10/9/2012 9:55:06 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/11/2012 12:51:22 AM
Surr: BFB	104	84-116		%REC	1	10/11/2012 12:51:22 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 4:21:47 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 6:02:53 PM
Arsenic	ND	12		mg/Kg	5	10/15/2012 10:21:33 AM
Barium	870	5.0		mg/Kg	50	10/11/2012 6:05:17 PM
Beryllium	ND	0.75		mg/Kg	5	10/11/2012 6:02:53 PM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 6:02:53 PM
Chromium	7.0	1.5		mg/Kg	5	10/15/2012 10:21:33 AM
Cobalt	5.7	1.5		mg/Kg	5	10/11/2012 6:02:53 PM
Iron	9500	500		mg/Kg	500	10/11/2012 6:07:44 PM
Lead	5.6	1.2		mg/Kg	5	10/11/2012 6:02:53 PM
Manganese	1100	5.0		mg/Kg	50	10/11/2012 6:05:17 PM
Nickel	5.2	2.5		mg/Kg	5	10/11/2012 6:02:53 PM
Selenium	ND	12		mg/Kg	5	10/15/2012 10:39:58 AM
Silver	ND	1.2		mg/Kg	5	10/11/2012 6:02:53 PM
Vanadium	16	12		mg/Kg	5	10/11/2012 6:02:53 PM
Zinc	15	12		mg/Kg	5	10/15/2012 10:21:33 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Aniline	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Anthracene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Azobenzene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/10/2012 9:22:16 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (4-6')
Project: SWMU NO.1
Collection Date: 10/4/2012 11:15:00 AM
Lab ID: 1210372-022
Matrix: SOIL
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/10/2012 9:22:16 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Carbazole	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 9:22:16 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/10/2012 9:22:16 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/10/2012 9:22:16 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Chrysene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/10/2012 9:22:16 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/10/2012 9:22:16 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/10/2012 9:22:16 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/10/2012 9:22:16 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/10/2012 9:22:16 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 9:22:16 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/10/2012 9:22:16 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 9:22:16 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 9:22:16 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Fluorene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Isophorone	ND	0.50		mg/Kg	1	10/10/2012 9:22:16 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/10/2012 9:22:16 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Naphthalene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-022 **Matrix:** SOIL

Client Sample ID: SWMU 1-6 (4-6')
Collection Date: 10/4/2012 11:15:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/10/2012 9:22:16 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/10/2012 9:22:16 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/10/2012 9:22:16 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/10/2012 9:22:16 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Phenol	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Pyrene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Pyridine	ND	0.50		mg/Kg	1	10/10/2012 9:22:16 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 9:22:16 AM
Surr: 2,4,6-Tribromophenol	87.0	21.3-145		%REC	1	10/10/2012 9:22:16 AM
Surr: 2-Fluorobiphenyl	88.5	20-131		%REC	1	10/10/2012 9:22:16 AM
Surr: 2-Fluorophenol	79.6	11.9-130		%REC	1	10/10/2012 9:22:16 AM
Surr: 4-Terphenyl-d14	74.9	25.1-149		%REC	1	10/10/2012 9:22:16 AM
Surr: Nitrobenzene-d5	91.0	25.6-137		%REC	1	10/10/2012 9:22:16 AM
Surr: Phenol-d5	91.3	20.3-132		%REC	1	10/10/2012 9:22:16 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Toluene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Ethylbenzene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Xylenes, Total	ND	0.00206		mg/Kg	1	10/9/2012 7:38:03 PM
Methyl tert-butyl ether (MTBE)	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,2,4-Trimethylbenzene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,3,5-Trimethylbenzene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,2-Dichloroethane (EDC)	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,2-Dibromoethane (EDB)	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Naphthalene	ND	0.00206		mg/Kg	1	10/9/2012 7:38:03 PM
1-Methylnaphthalene	ND	0.00412		mg/Kg	1	10/9/2012 7:38:03 PM
2-Methylnaphthalene	ND	0.00412		mg/Kg	1	10/9/2012 7:38:03 PM
Acetone	0.0625	0.0103		mg/Kg	1	10/9/2012 7:38:03 PM
Bromobenzene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Bromodichloromethane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Bromoform	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Bromomethane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
2-Butanone	ND	0.0103		mg/Kg	1	10/9/2012 7:38:03 PM
Carbon tetrachloride	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Chlorobenzene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Chloroethane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (4-6')
Project: SWMU NO.1
Collection Date: 10/4/2012 11:15:00 AM
Lab ID: 1210372-022 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Chloromethane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
2-Chlorotoluene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Carbon disulfide	ND	0.0103		mg/Kg	1	10/9/2012 7:38:03 PM
4-Chlorotoluene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
cis-1,2-DCE	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
cis-1,3-Dichloropropene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,2-Dibromo-3-chloropropane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Dibromochloromethane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Dibromomethane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,2-Dichlorobenzene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,3-Dichlorobenzene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,4-Dichlorobenzene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Dichlorodifluoromethane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,1-Dichloroethane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,1-Dichloroethene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,2-Dichloropropane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,3-Dichloropropane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
2,2-Dichloropropane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,1-Dichloropropene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Hexachlorobutadiene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Isopropylbenzene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
4-Isopropyltoluene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Methylene chloride	ND	0.00309		mg/Kg	1	10/9/2012 7:38:03 PM
n-Butylbenzene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
2-Hexanone	ND	0.0103		mg/Kg	1	10/9/2012 7:38:03 PM
n-Propylbenzene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
sec-Butylbenzene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Styrene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
4-Methyl-2-pentanone	ND	0.0103		mg/Kg	1	10/9/2012 7:38:03 PM
tert-Butylbenzene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,1,1,2-Tetrachloroethane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,1,2,2-Tetrachloroethane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Tetrachloroethene (PCE)	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
trans-1,2-DCE	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
trans-1,3-Dichloropropene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,2,3-Trichlorobenzene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,2,4-Trichlorobenzene	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,1,1-Trichloroethane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
1,1,2-Trichloroethane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Trichloroethene (TCE)	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Trichlorofluoromethane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (4-6')
Project: SWMU NO.1
Collection Date: 10/4/2012 11:15:00 AM
Lab ID: 1210372-022
Matrix: SOIL
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Vinyl chloride	ND	0.00103		mg/Kg	1	10/9/2012 7:38:03 PM
Surr: 1,2-Dichloroethane-d4	96.6	70-130		%REC	1	10/9/2012 7:38:03 PM
Surr: 4-Bromofluorobenzene	96.8	70-130		%REC	1	10/9/2012 7:38:03 PM
Surr: Dibromofluoromethane	110	70-130		%REC	1	10/9/2012 7:38:03 PM
Surr: Toluene-d8	96.2	70-130		%REC	1	10/9/2012 7:38:03 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (7.5-8')
Project: SWMU NO.1
Collection Date: 10/4/2012 11:30:00 AM
Lab ID: 1210372-023 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/9/2012 10:20:19 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/9/2012 10:20:19 AM
Surr: DNOP	104	77.6-140		%REC	1	10/9/2012 10:20:19 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/11/2012 1:20:05 AM
Surr: BFB	108	84-116		%REC	1	10/11/2012 1:20:05 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 4:23:43 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/11/2012 6:10:37 PM
Arsenic	ND	12		mg/Kg	5	10/15/2012 10:23:51 AM
Barium	110	0.50		mg/Kg	5	10/11/2012 6:10:37 PM
Beryllium	0.83	0.75		mg/Kg	5	10/11/2012 6:10:37 PM
Cadmium	ND	0.50		mg/Kg	5	10/11/2012 6:10:37 PM
Chromium	8.3	1.5		mg/Kg	5	10/15/2012 10:23:51 AM
Cobalt	4.1	1.5		mg/Kg	5	10/11/2012 6:10:37 PM
Iron	13000	500		mg/Kg	500	10/11/2012 6:15:26 PM
Lead	4.1	1.2		mg/Kg	5	10/11/2012 6:10:37 PM
Manganese	390	5.0		mg/Kg	50	10/11/2012 6:13:03 PM
Nickel	6.7	2.5		mg/Kg	5	10/11/2012 6:10:37 PM
Selenium	ND	12		mg/Kg	5	10/15/2012 10:42:12 AM
Silver	ND	1.2		mg/Kg	5	10/11/2012 6:10:37 PM
Vanadium	14	12		mg/Kg	5	10/11/2012 6:10:37 PM
Zinc	14	12		mg/Kg	5	10/15/2012 10:23:51 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Aniline	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Anthracene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Azobenzene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/10/2012 9:51:16 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-023 **Matrix:** SOIL

Client Sample ID: SWMU 1-6 (7.5-8')
Collection Date: 10/4/2012 11:30:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/10/2012 9:51:16 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Carbazole	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 9:51:16 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/10/2012 9:51:16 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/10/2012 9:51:16 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Chrysene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/10/2012 9:51:16 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/10/2012 9:51:16 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/10/2012 9:51:16 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/10/2012 9:51:16 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/10/2012 9:51:16 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/10/2012 9:51:16 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/10/2012 9:51:16 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 9:51:16 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/10/2012 9:51:16 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Fluorene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Isophorone	ND	0.50		mg/Kg	1	10/10/2012 9:51:16 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/10/2012 9:51:16 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Naphthalene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-023 **Matrix:** SOIL

Client Sample ID: SWMU 1-6 (7.5-8')
Collection Date: 10/4/2012 11:30:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/10/2012 9:51:16 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/10/2012 9:51:16 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/10/2012 9:51:16 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/10/2012 9:51:16 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Phenol	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Pyrene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Pyridine	ND	0.50		mg/Kg	1	10/10/2012 9:51:16 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/10/2012 9:51:16 AM
Surr: 2,4,6-Tribromophenol	78.1	21.3-145		%REC	1	10/10/2012 9:51:16 AM
Surr: 2-Fluorobiphenyl	91.1	20-131		%REC	1	10/10/2012 9:51:16 AM
Surr: 2-Fluorophenol	78.6	11.9-130		%REC	1	10/10/2012 9:51:16 AM
Surr: 4-Terphenyl-d14	77.8	25.1-149		%REC	1	10/10/2012 9:51:16 AM
Surr: Nitrobenzene-d5	94.1	25.6-137		%REC	1	10/10/2012 9:51:16 AM
Surr: Phenol-d5	91.1	20.3-132		%REC	1	10/10/2012 9:51:16 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Toluene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Ethylbenzene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Xylenes, Total	ND	0.00247		mg/Kg	1	10/9/2012 8:08:50 PM
Methyl tert-butyl ether (MTBE)	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,2,4-Trimethylbenzene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,3,5-Trimethylbenzene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,2-Dichloroethane (EDC)	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,2-Dibromoethane (EDB)	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Naphthalene	ND	0.00247		mg/Kg	1	10/9/2012 8:08:50 PM
1-Methylnaphthalene	ND	0.00494		mg/Kg	1	10/9/2012 8:08:50 PM
2-Methylnaphthalene	ND	0.00494		mg/Kg	1	10/9/2012 8:08:50 PM
Acetone	ND	0.0123		mg/Kg	1	10/9/2012 8:08:50 PM
Bromobenzene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Bromodichloromethane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Bromoform	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Bromomethane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
2-Butanone	ND	0.0123		mg/Kg	1	10/9/2012 8:08:50 PM
Carbon tetrachloride	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Chlorobenzene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Chloroethane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (7.5-8')
Project: SWMU NO.1
Collection Date: 10/4/2012 11:30:00 AM
Lab ID: 1210372-023 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Chloromethane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
2-Chlorotoluene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Carbon disulfide	ND	0.0123		mg/Kg	1	10/9/2012 8:08:50 PM
4-Chlorotoluene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
cis-1,2-DCE	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
cis-1,3-Dichloropropene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,2-Dibromo-3-chloropropane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Dibromochloromethane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Dibromomethane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,2-Dichlorobenzene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,3-Dichlorobenzene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,4-Dichlorobenzene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Dichlorodifluoromethane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,1-Dichloroethane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,1-Dichloroethene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,2-Dichloropropane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,3-Dichloropropane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
2,2-Dichloropropane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,1-Dichloropropene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Hexachlorobutadiene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Isopropylbenzene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
4-Isopropyltoluene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Methylene chloride	ND	0.00370		mg/Kg	1	10/9/2012 8:08:50 PM
n-Butylbenzene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
2-Hexanone	ND	0.0123		mg/Kg	1	10/9/2012 8:08:50 PM
n-Propylbenzene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
sec-Butylbenzene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Styrene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
4-Methyl-2-pentanone	ND	0.0123		mg/Kg	1	10/9/2012 8:08:50 PM
tert-Butylbenzene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,1,1,2-Tetrachloroethane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,1,2,2-Tetrachloroethane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Tetrachloroethene (PCE)	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
trans-1,2-DCE	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
trans-1,3-Dichloropropene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,2,3-Trichlorobenzene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,2,4-Trichlorobenzene	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,1,1-Trichloroethane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
1,1,2-Trichloroethane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Trichloroethene (TCE)	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Trichlorofluoromethane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 (7.5-8')
Project: SWMU NO.1
Collection Date: 10/4/2012 11:30:00 AM
Lab ID: 1210372-023 **Matrix:** SOIL **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Vinyl chloride	ND	0.00123		mg/Kg	1	10/9/2012 8:08:50 PM
Surr: 1,2-Dichloroethane-d4	93.3	70-130		%REC	1	10/9/2012 8:08:50 PM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	1	10/9/2012 8:08:50 PM
Surr: Dibromofluoromethane	105	70-130		%REC	1	10/9/2012 8:08:50 PM
Surr: Toluene-d8	94.5	70-130		%REC	1	10/9/2012 8:08:50 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-024 **Matrix:** AQUEOUS

Client Sample ID: EB100412
Collection Date: 10/4/2012 5:25:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/8/2012 7:04:53 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/8/2012 7:04:53 PM
Surr: DNOP	120	79.5-166		%REC	1	10/8/2012 7:04:53 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/11/2012 2:57:02 PM
Surr: BFB	98.2	69.8-119		%REC	1	10/11/2012 2:57:02 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	ND	0.10		mg/L	1	10/11/2012 4:12:25 AM
Chloride	ND	0.50		mg/L	1	10/8/2012 9:18:45 PM
Sulfate	ND	0.50		mg/L	1	10/8/2012 9:18:45 PM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	ND	0.0020		mg/L	1	10/10/2012 9:44:39 PM
Beryllium	ND	0.0020		mg/L	1	10/10/2012 9:44:39 PM
Cadmium	ND	0.0020		mg/L	1	10/10/2012 9:44:39 PM
Chromium	ND	0.0060		mg/L	1	10/10/2012 9:44:39 PM
Cobalt	ND	0.0060		mg/L	1	10/10/2012 9:44:39 PM
Iron	ND	0.020		mg/L	1	10/10/2012 9:44:39 PM
Manganese	ND	0.0020		mg/L	1	10/10/2012 9:44:39 PM
Nickel	ND	0.010		mg/L	1	10/10/2012 9:44:39 PM
Silver	ND	0.0050		mg/L	1	10/10/2012 9:44:39 PM
Vanadium	ND	0.050		mg/L	1	10/10/2012 9:44:39 PM
Zinc	ND	0.010		mg/L	1	10/12/2012 8:28:25 AM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0010		mg/L	1	10/17/2012 11:25:09 AM
Arsenic	ND	0.0010		mg/L	1	10/17/2012 11:25:09 AM
Lead	ND	0.0010		mg/L	1	10/17/2012 11:25:09 AM
Selenium	ND	0.0010		mg/L	1	10/17/2012 11:25:09 AM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	10/12/2012 4:54:38 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Acenaphthylene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Aniline	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Anthracene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Azobenzene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Benz(a)anthracene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Benzo(a)pyrene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/12/2012 12:06:49 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB100412
Project: SWMU NO.1
Collection Date: 10/4/2012 5:25:00 PM
Lab ID: 1210372-024
Matrix: AQUEOUS
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Benzo(k)fluoranthene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Benzoic acid	ND	20		µg/L	1	10/12/2012 12:06:49 AM
Benzyl alcohol	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/12/2012 12:06:49 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Butyl benzyl phthalate	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Carbazole	ND	10		µg/L	1	10/12/2012 12:06:49 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/12/2012 12:06:49 AM
4-Chloroaniline	ND	10		µg/L	1	10/12/2012 12:06:49 AM
2-Chloronaphthalene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
2-Chlorophenol	ND	10		µg/L	1	10/12/2012 12:06:49 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Chrysene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Di-n-butyl phthalate	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Di-n-octyl phthalate	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Dibenzofuran	ND	10		µg/L	1	10/12/2012 12:06:49 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Diethyl phthalate	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Dimethyl phthalate	ND	10		µg/L	1	10/12/2012 12:06:49 AM
2,4-Dichlorophenol	ND	20		µg/L	1	10/12/2012 12:06:49 AM
2,4-Dimethylphenol	ND	10		µg/L	1	10/12/2012 12:06:49 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/12/2012 12:06:49 AM
2,4-Dinitrophenol	ND	20		µg/L	1	10/12/2012 12:06:49 AM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Fluoranthene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Fluorene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Hexachlorobenzene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Hexachlorobutadiene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Hexachloroethane	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Isophorone	ND	10		µg/L	1	10/12/2012 12:06:49 AM
1-Methylnaphthalene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
2-Methylnaphthalene	ND	10		µg/L	1	10/12/2012 12:06:49 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB100412
Project: SWMU NO.1
Collection Date: 10/4/2012 5:25:00 PM
Lab ID: 1210372-024
Matrix: AQUEOUS
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Methylphenol	ND	10		µg/L	1	10/12/2012 12:06:49 AM
3+4-Methylphenol	ND	10		µg/L	1	10/12/2012 12:06:49 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/12/2012 12:06:49 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/12/2012 12:06:49 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Naphthalene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
2-Nitroaniline	ND	10		µg/L	1	10/12/2012 12:06:49 AM
3-Nitroaniline	ND	10		µg/L	1	10/12/2012 12:06:49 AM
4-Nitroaniline	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Nitrobenzene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
2-Nitrophenol	ND	10		µg/L	1	10/12/2012 12:06:49 AM
4-Nitrophenol	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Pentachlorophenol	ND	20		µg/L	1	10/12/2012 12:06:49 AM
Phenanthrene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Phenol	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Pyrene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Pyridine	ND	10		µg/L	1	10/12/2012 12:06:49 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/12/2012 12:06:49 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/12/2012 12:06:49 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/12/2012 12:06:49 AM
Surr: 2,4,6-Tribromophenol	77.9	44.2-126		%REC	1	10/12/2012 12:06:49 AM
Surr: 2-Fluorobiphenyl	65.9	37-114		%REC	1	10/12/2012 12:06:49 AM
Surr: 2-Fluorophenol	60.2	23.4-98		%REC	1	10/12/2012 12:06:49 AM
Surr: 4-Terphenyl-d14	59.6	41.3-116		%REC	1	10/12/2012 12:06:49 AM
Surr: Nitrobenzene-d5	78.4	39.5-118		%REC	1	10/12/2012 12:06:49 AM
Surr: Phenol-d5	44.1	20.9-95.9		%REC	1	10/12/2012 12:06:49 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
Toluene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
Ethylbenzene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
Naphthalene	ND	2.0		µg/L	1	10/9/2012 6:35:06 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/9/2012 6:35:06 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/9/2012 6:35:06 PM
Acetone	ND	10		µg/L	1	10/9/2012 6:35:06 PM
Bromobenzene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-024 **Matrix:** AQUEOUS

Client Sample ID: EB100412
Collection Date: 10/4/2012 5:25:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Bromoform	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
Bromomethane	ND	3.0		µg/L	1	10/9/2012 6:35:06 PM
2-Butanone	ND	10		µg/L	1	10/9/2012 6:35:06 PM
Carbon disulfide	ND	10		µg/L	1	10/9/2012 6:35:06 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
Chlorobenzene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
Chloroethane	ND	2.0		µg/L	1	10/9/2012 6:35:06 PM
Chloroform	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
Chloromethane	ND	3.0		µg/L	1	10/9/2012 6:35:06 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/9/2012 6:35:06 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
Dibromomethane	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/9/2012 6:35:06 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
2-Hexanone	ND	10		µg/L	1	10/9/2012 6:35:06 PM
Isopropylbenzene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/9/2012 6:35:06 PM
Methylene Chloride	ND	3.0		µg/L	1	10/9/2012 6:35:06 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/9/2012 6:35:06 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
Styrene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/9/2012 6:35:06 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB100412
Project: SWMU NO.1
Collection Date: 10/4/2012 5:25:00 PM
Lab ID: 1210372-024
Matrix: AQUEOUS
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/9/2012 6:35:06 PM
Vinyl chloride	ND	1.0		µg/L	1	10/9/2012 6:35:06 PM
Xylenes, Total	ND	1.5		µg/L	1	10/9/2012 6:35:06 PM
Surr: 1,2-Dichloroethane-d4	95.3	70-130		%REC	1	10/9/2012 6:35:06 PM
Surr: 4-Bromofluorobenzene	98.1	70-130		%REC	1	10/9/2012 6:35:06 PM
Surr: Dibromofluoromethane	99.8	70-130		%REC	1	10/9/2012 6:35:06 PM
Surr: Toluene-d8	95.5	70-130		%REC	1	10/9/2012 6:35:06 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: SWMU NO.1
Collection Date:
Lab ID: 1210372-025
Matrix: TRIP BLANK
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
Toluene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
Ethylbenzene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
Naphthalene	ND	2.0		µg/L	1	10/9/2012 7:03:23 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/9/2012 7:03:23 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/9/2012 7:03:23 PM
Acetone	ND	10		µg/L	1	10/9/2012 7:03:23 PM
Bromobenzene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
Bromoform	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
Bromomethane	ND	3.0		µg/L	1	10/9/2012 7:03:23 PM
2-Butanone	ND	10		µg/L	1	10/9/2012 7:03:23 PM
Carbon disulfide	ND	10		µg/L	1	10/9/2012 7:03:23 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
Chlorobenzene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
Chloroethane	ND	2.0		µg/L	1	10/9/2012 7:03:23 PM
Chloroform	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
Chloromethane	ND	3.0		µg/L	1	10/9/2012 7:03:23 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/9/2012 7:03:23 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
Dibromomethane	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/9/2012 7:03:23 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
2-Hexanone	ND	10		µg/L	1	10/9/2012 7:03:23 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: SWMU NO.1
Collection Date:
Lab ID: 1210372-025
Matrix: TRIP BLANK
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Isopropylbenzene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/9/2012 7:03:23 PM
Methylene Chloride	ND	3.0		µg/L	1	10/9/2012 7:03:23 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/9/2012 7:03:23 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
Styrene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/9/2012 7:03:23 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/9/2012 7:03:23 PM
Vinyl chloride	ND	1.0		µg/L	1	10/9/2012 7:03:23 PM
Xylenes, Total	ND	1.5		µg/L	1	10/9/2012 7:03:23 PM
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%REC	1	10/9/2012 7:03:23 PM
Surr: 4-Bromofluorobenzene	98.1	70-130		%REC	1	10/9/2012 7:03:23 PM
Surr: Dibromofluoromethane	97.8	70-130		%REC	1	10/9/2012 7:03:23 PM
Surr: Toluene-d8	93.9	70-130		%REC	1	10/9/2012 7:03:23 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-4 GW
Project: SWMU NO.1
Collection Date: 10/4/2012 9:25:00 AM
Lab ID: 1210372-026 **Matrix:** AQUEOUS **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	4.4	1.0		mg/L	1	10/8/2012 7:30:15 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/8/2012 7:30:15 PM
Surr: DNOP	122	79.5-166		%REC	1	10/8/2012 7:30:15 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.73	0.050		mg/L	1	10/10/2012 7:47:14 PM
Surr: BFB	145	69.8-119	S	%REC	1	10/10/2012 7:47:14 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Acenaphthylene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Aniline	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Anthracene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Azobenzene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Benz(a)anthracene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Benzo(a)pyrene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Benzoic acid	ND	20		µg/L	1	10/12/2012 12:36:10 AM
Benzyl alcohol	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/12/2012 12:36:10 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Butyl benzyl phthalate	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Carbazole	ND	10		µg/L	1	10/12/2012 12:36:10 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/12/2012 12:36:10 AM
4-Chloroaniline	ND	10		µg/L	1	10/12/2012 12:36:10 AM
2-Chloronaphthalene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
2-Chlorophenol	ND	10		µg/L	1	10/12/2012 12:36:10 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Chrysene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Di-n-butyl phthalate	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Di-n-octyl phthalate	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Dibenzofuran	ND	10		µg/L	1	10/12/2012 12:36:10 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Diethyl phthalate	ND	10		µg/L	1	10/12/2012 12:36:10 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-4 GW
Project: SWMU NO.1
Collection Date: 10/4/2012 9:25:00 AM
Lab ID: 1210372-026 **Matrix:** AQUEOUS **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Dimethyl phthalate	10	10		µg/L	1	10/12/2012 12:36:10 AM
2,4-Dichlorophenol	ND	20		µg/L	1	10/12/2012 12:36:10 AM
2,4-Dimethylphenol	850	50		µg/L	5	10/12/2012 10:37:56 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/12/2012 12:36:10 AM
2,4-Dinitrophenol	ND	20		µg/L	1	10/12/2012 12:36:10 AM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Fluoranthene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Fluorene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Hexachlorobenzene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Hexachlorobutadiene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Hexachloroethane	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Isophorone	ND	10		µg/L	1	10/12/2012 12:36:10 AM
1-Methylnaphthalene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
2-Methylnaphthalene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
2-Methylphenol	18	10		µg/L	1	10/12/2012 12:36:10 AM
3+4-Methylphenol	18	10		µg/L	1	10/12/2012 12:36:10 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/12/2012 12:36:10 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/12/2012 12:36:10 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Naphthalene	16	10		µg/L	1	10/12/2012 12:36:10 AM
2-Nitroaniline	ND	10		µg/L	1	10/12/2012 12:36:10 AM
3-Nitroaniline	ND	10		µg/L	1	10/12/2012 12:36:10 AM
4-Nitroaniline	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Nitrobenzene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
2-Nitrophenol	ND	10		µg/L	1	10/12/2012 12:36:10 AM
4-Nitrophenol	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Pentachlorophenol	ND	20		µg/L	1	10/12/2012 12:36:10 AM
Phenanthrene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Phenol	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Pyrene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Pyridine	ND	10		µg/L	1	10/12/2012 12:36:10 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/12/2012 12:36:10 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/12/2012 12:36:10 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/12/2012 12:36:10 AM
Surr: 2,4,6-Tribromophenol	76.9	44.2-126		%REC	1	10/12/2012 12:36:10 AM
Surr: 2-Fluorobiphenyl	67.2	37-114		%REC	1	10/12/2012 12:36:10 AM
Surr: 2-Fluorophenol	53.6	23.4-98		%REC	1	10/12/2012 12:36:10 AM
Surr: 4-Terphenyl-d14	65.1	41.3-116		%REC	1	10/12/2012 12:36:10 AM
Surr: Nitrobenzene-d5	76.1	39.5-118		%REC	1	10/12/2012 12:36:10 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-4 GW
Project: SWMU NO.1
Collection Date: 10/4/2012 9:25:00 AM
Lab ID: 1210372-026 **Matrix:** AQUEOUS **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Surr: Phenol-d5	44.4	20.9-95.9		%REC	1	10/12/2012 12:36:10 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	24	1.0		µg/L	1	10/9/2012 7:31:32 PM
Toluene	16	1.0		µg/L	1	10/9/2012 7:31:32 PM
Ethylbenzene	16	1.0		µg/L	1	10/9/2012 7:31:32 PM
Methyl tert-butyl ether (MTBE)	59	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,2,4-Trimethylbenzene	32	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,3,5-Trimethylbenzene	8.0	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
Naphthalene	32	2.0		µg/L	1	10/9/2012 7:31:32 PM
1-Methylnaphthalene	11	4.0		µg/L	1	10/9/2012 7:31:32 PM
2-Methylnaphthalene	19	4.0		µg/L	1	10/9/2012 7:31:32 PM
Acetone	130	10		µg/L	1	10/9/2012 7:31:32 PM
Bromobenzene	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
Bromoform	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
Bromomethane	ND	3.0		µg/L	1	10/9/2012 7:31:32 PM
2-Butanone	47	10		µg/L	1	10/9/2012 7:31:32 PM
Carbon disulfide	ND	10		µg/L	1	10/9/2012 7:31:32 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
Chlorobenzene	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
Chloroethane	ND	2.0		µg/L	1	10/9/2012 7:31:32 PM
Chloroform	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
Chloromethane	ND	3.0		µg/L	1	10/9/2012 7:31:32 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/9/2012 7:31:32 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
Dibromomethane	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/9/2012 7:31:32 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-026 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-4 GW
Collection Date: 10/4/2012 9:25:00 AM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
2-Hexanone	16	10		µg/L	1	10/9/2012 7:31:32 PM
Isopropylbenzene	1.5	1.0		µg/L	1	10/9/2012 7:31:32 PM
4-Isopropyltoluene	1.5	1.0		µg/L	1	10/9/2012 7:31:32 PM
4-Methyl-2-pentanone	15	10		µg/L	1	10/9/2012 7:31:32 PM
Methylene Chloride	ND	3.0		µg/L	1	10/9/2012 7:31:32 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/9/2012 7:31:32 PM
n-Propylbenzene	2.7	1.0		µg/L	1	10/9/2012 7:31:32 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
Styrene	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/9/2012 7:31:32 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/9/2012 7:31:32 PM
Vinyl chloride	ND	1.0		µg/L	1	10/9/2012 7:31:32 PM
Xylenes, Total	100	1.5		µg/L	1	10/9/2012 7:31:32 PM
Surr: 1,2-Dichloroethane-d4	95.6	70-130		%REC	1	10/9/2012 7:31:32 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	10/9/2012 7:31:32 PM
Surr: Dibromofluoromethane	97.4	70-130		%REC	1	10/9/2012 7:31:32 PM
Surr: Toluene-d8	94.3	70-130		%REC	1	10/9/2012 7:31:32 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-027 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-6 GW
Collection Date: 10/4/2012 4:05:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	1.3	1.0		mg/L	1	10/8/2012 7:55:40 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/8/2012 7:55:40 PM
Surr: DNOP	127	79.5-166		%REC	1	10/8/2012 7:55:40 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.13	0.050		mg/L	1	10/10/2012 8:17:32 PM
Surr: BFB	107	69.8-119		%REC	1	10/10/2012 8:17:32 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	8.8	0.50	*	mg/L	5	10/17/2012 9:44:56 PM
Chloride	1200	50		mg/L	100	10/11/2012 10:27:13 PM
Sulfate	1800	50		mg/L	100	10/11/2012 4:37:15 AM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	3.4	0.020	*	mg/L	5	10/10/2012 7:04:21 PM
Beryllium	0.041	0.020	*	mg/L	5	10/10/2012 7:04:21 PM
Cadmium	ND	0.020		mg/L	5	10/10/2012 7:04:21 PM
Chromium	0.16	0.060	*	mg/L	5	10/12/2012 8:33:04 AM
Cobalt	0.27	0.060		mg/L	5	10/10/2012 7:04:21 PM
Iron	94	2.0	*	mg/L	50	10/12/2012 8:36:20 AM
Manganese	39	0.20	*	mg/L	50	10/12/2012 8:36:20 AM
Nickel	0.55	0.10	*	mg/L	5	10/10/2012 7:04:21 PM
Silver	ND	0.050		mg/L	5	10/10/2012 7:04:21 PM
Vanadium	ND	0.50		mg/L	5	10/10/2012 7:04:21 PM
Zinc	0.88	0.10		mg/L	5	10/12/2012 8:33:04 AM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0050		mg/L	2.5	10/15/2012 5:14:52 PM
Arsenic	0.054	0.0050	*	mg/L	2.5	10/15/2012 5:14:52 PM
Lead	0.29	0.010	*	mg/L	5	10/16/2012 3:28:37 PM
Selenium	0.024	0.0050		mg/L	2.5	10/15/2012 5:14:52 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	0.00021	0.00020		mg/L	1	10/12/2012 4:57:39 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Acenaphthylene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Aniline	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Anthracene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Azobenzene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Benz(a)anthracene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Benzo(a)pyrene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Benzo(b)fluoranthene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Benzo(g,h,i)perylene	ND	20		µg/L	2	10/12/2012 11:07:17 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-027 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-6 GW
Collection Date: 10/4/2012 4:05:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Benzo(k)fluoranthene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Benzoic acid	ND	40		µg/L	2	10/12/2012 11:07:17 AM
Benzyl alcohol	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Bis(2-chloroethoxy)methane	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Bis(2-chloroethyl)ether	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Bis(2-chloroisopropyl)ether	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Bis(2-ethylhexyl)phthalate	ND	20		µg/L	2	10/12/2012 11:07:17 AM
4-Bromophenyl phenyl ether	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Butyl benzyl phthalate	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Carbazole	ND	20		µg/L	2	10/12/2012 11:07:17 AM
4-Chloro-3-methylphenol	ND	20		µg/L	2	10/12/2012 11:07:17 AM
4-Chloroaniline	ND	20		µg/L	2	10/12/2012 11:07:17 AM
2-Chloronaphthalene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
2-Chlorophenol	ND	20		µg/L	2	10/12/2012 11:07:17 AM
4-Chlorophenyl phenyl ether	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Chrysene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Di-n-butyl phthalate	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Di-n-octyl phthalate	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Dibenz(a,h)anthracene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Dibenzofuran	ND	20		µg/L	2	10/12/2012 11:07:17 AM
1,2-Dichlorobenzene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
1,3-Dichlorobenzene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
1,4-Dichlorobenzene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
3,3'-Dichlorobenzidine	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Diethyl phthalate	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Dimethyl phthalate	ND	20		µg/L	2	10/12/2012 11:07:17 AM
2,4-Dichlorophenol	ND	40		µg/L	2	10/12/2012 11:07:17 AM
2,4-Dimethylphenol	ND	20		µg/L	2	10/12/2012 11:07:17 AM
4,6-Dinitro-2-methylphenol	ND	40		µg/L	2	10/12/2012 11:07:17 AM
2,4-Dinitrophenol	ND	40		µg/L	2	10/12/2012 11:07:17 AM
2,4-Dinitrotoluene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
2,6-Dinitrotoluene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Fluoranthene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Fluorene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Hexachlorobenzene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Hexachlorobutadiene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Hexachlorocyclopentadiene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Hexachloroethane	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Indeno(1,2,3-cd)pyrene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Isophorone	ND	20		µg/L	2	10/12/2012 11:07:17 AM
1-Methylnaphthalene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
2-Methylnaphthalene	ND	20		µg/L	2	10/12/2012 11:07:17 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 GW
Project: SWMU NO.1
Collection Date: 10/4/2012 4:05:00 PM
Lab ID: 1210372-027 **Matrix:** AQUEOUS **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Methylphenol	ND	20		µg/L	2	10/12/2012 11:07:17 AM
3+4-Methylphenol	ND	20		µg/L	2	10/12/2012 11:07:17 AM
N-Nitrosodi-n-propylamine	ND	20		µg/L	2	10/12/2012 11:07:17 AM
N-Nitrosodimethylamine	ND	20		µg/L	2	10/12/2012 11:07:17 AM
N-Nitrosodiphenylamine	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Naphthalene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
2-Nitroaniline	ND	20		µg/L	2	10/12/2012 11:07:17 AM
3-Nitroaniline	ND	20		µg/L	2	10/12/2012 11:07:17 AM
4-Nitroaniline	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Nitrobenzene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
2-Nitrophenol	240	20		µg/L	2	10/12/2012 11:07:17 AM
4-Nitrophenol	26	20		µg/L	2	10/12/2012 11:07:17 AM
Pentachlorophenol	ND	40		µg/L	2	10/12/2012 11:07:17 AM
Phenanthrene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Phenol	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Pyrene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Pyridine	ND	20		µg/L	2	10/12/2012 11:07:17 AM
1,2,4-Trichlorobenzene	ND	20		µg/L	2	10/12/2012 11:07:17 AM
2,4,5-Trichlorophenol	ND	20		µg/L	2	10/12/2012 11:07:17 AM
2,4,6-Trichlorophenol	ND	20		µg/L	2	10/12/2012 11:07:17 AM
Surr: 2,4,6-Tribromophenol	50.7	44.2-126		%REC	2	10/12/2012 11:07:17 AM
Surr: 2-Fluorobiphenyl	79.4	37-114		%REC	2	10/12/2012 11:07:17 AM
Surr: 2-Fluorophenol	36.6	23.4-98		%REC	2	10/12/2012 11:07:17 AM
Surr: 4-Terphenyl-d14	78.4	41.3-116		%REC	2	10/12/2012 11:07:17 AM
Surr: Nitrobenzene-d5	89.5	39.5-118		%REC	2	10/12/2012 11:07:17 AM
Surr: Phenol-d5	29.6	20.9-95.9		%REC	2	10/12/2012 11:07:17 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
Toluene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
Ethylbenzene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
Naphthalene	ND	2.0		µg/L	1	10/10/2012 3:38:56 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/10/2012 3:38:56 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/10/2012 3:38:56 PM
Acetone	270	50		µg/L	5	10/9/2012 7:59:33 PM
Bromobenzene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-6 GW
Project: SWMU NO.1
Collection Date: 10/4/2012 4:05:00 PM
Lab ID: 1210372-027
Matrix: AQUEOUS
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Bromoform	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
Bromomethane	3.0	3.0		µg/L	1	10/10/2012 3:38:56 PM
2-Butanone	26	10		µg/L	1	10/10/2012 3:38:56 PM
Carbon disulfide	30	10		µg/L	1	10/10/2012 3:38:56 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
Chlorobenzene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
Chloroethane	ND	2.0		µg/L	1	10/10/2012 3:38:56 PM
Chloroform	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
Chloromethane	3.5	3.0		µg/L	1	10/10/2012 3:38:56 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/10/2012 3:38:56 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
Dibromomethane	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/10/2012 3:38:56 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
2-Hexanone	ND	10		µg/L	1	10/10/2012 3:38:56 PM
Isopropylbenzene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
4-Isopropyltoluene	1.2	1.0		µg/L	1	10/10/2012 3:38:56 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/10/2012 3:38:56 PM
Methylene Chloride	ND	3.0		µg/L	1	10/10/2012 3:38:56 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/10/2012 3:38:56 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
Styrene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/10/2012 3:38:56 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-027 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-6 GW
Collection Date: 10/4/2012 4:05:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/10/2012 3:38:56 PM
Vinyl chloride	ND	1.0		µg/L	1	10/10/2012 3:38:56 PM
Xylenes, Total	ND	1.5		µg/L	1	10/10/2012 3:38:56 PM
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	1	10/10/2012 3:38:56 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	10/10/2012 3:38:56 PM
Surr: Dibromofluoromethane	94.6	70-130		%REC	1	10/10/2012 3:38:56 PM
Surr: Toluene-d8	94.1	70-130		%REC	1	10/10/2012 3:38:56 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-028 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-7 GW
Collection Date: 10/4/2012 4:55:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/8/2012 8:21:01 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/8/2012 8:21:01 PM
Surr: DNOP	125	79.5-166		%REC	1	10/8/2012 8:21:01 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	0.22	0.10		mg/L	2	10/10/2012 8:47:37 PM
Surr: BFB	93.6	69.8-119		%REC	2	10/10/2012 8:47:37 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	1.1	0.50		mg/L	5	10/17/2012 9:57:20 PM
Chloride	1800	100		mg/L	200	10/11/2012 10:39:38 PM
Sulfate	2200	25		mg/L	50	10/11/2012 5:26:54 AM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	3.2	0.020	*	mg/L	5	10/10/2012 7:11:01 PM
Beryllium	0.051	0.020	*	mg/L	5	10/10/2012 7:11:01 PM
Cadmium	ND	0.020		mg/L	5	10/10/2012 7:11:01 PM
Chromium	0.17	0.060	*	mg/L	5	10/12/2012 8:40:08 AM
Cobalt	0.16	0.060		mg/L	5	10/10/2012 7:11:01 PM
Iron	130	4.0	*	mg/L	100	10/12/2012 10:09:47 AM
Manganese	33	0.20	*	mg/L	50	10/12/2012 8:43:25 AM
Nickel	0.46	0.10	*	mg/L	5	10/10/2012 7:11:01 PM
Silver	ND	0.050		mg/L	5	10/10/2012 7:11:01 PM
Vanadium	ND	0.50		mg/L	5	10/10/2012 7:11:01 PM
Zinc	0.42	0.10		mg/L	5	10/12/2012 8:40:08 AM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0050		mg/L	2.5	10/15/2012 5:18:48 PM
Arsenic	0.046	0.0050	*	mg/L	2.5	10/15/2012 5:18:48 PM
Lead	0.34	0.010	*	mg/L	5	10/16/2012 3:40:27 PM
Selenium	0.022	0.0050		mg/L	2.5	10/15/2012 5:18:48 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	0.00034	0.00020		mg/L	1	10/12/2012 4:59:25 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Acenaphthylene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Aniline	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Anthracene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Azobenzene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Benz(a)anthracene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Benzo(a)pyrene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/12/2012 1:34:52 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-7 GW
Project: SWMU NO.1
Collection Date: 10/4/2012 4:55:00 PM
Lab ID: 1210372-028 **Matrix:** AQUEOUS **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Benzo(k)fluoranthene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Benzoic acid	ND	20		µg/L	1	10/12/2012 1:34:52 AM
Benzyl alcohol	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/12/2012 1:34:52 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Butyl benzyl phthalate	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Carbazole	ND	10		µg/L	1	10/12/2012 1:34:52 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/12/2012 1:34:52 AM
4-Chloroaniline	ND	10		µg/L	1	10/12/2012 1:34:52 AM
2-Chloronaphthalene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
2-Chlorophenol	ND	10		µg/L	1	10/12/2012 1:34:52 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Chrysene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Di-n-butyl phthalate	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Di-n-octyl phthalate	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Dibenzofuran	ND	10		µg/L	1	10/12/2012 1:34:52 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Diethyl phthalate	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Dimethyl phthalate	ND	10		µg/L	1	10/12/2012 1:34:52 AM
2,4-Dichlorophenol	ND	20		µg/L	1	10/12/2012 1:34:52 AM
2,4-Dimethylphenol	ND	10		µg/L	1	10/12/2012 1:34:52 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/12/2012 1:34:52 AM
2,4-Dinitrophenol	ND	20		µg/L	1	10/12/2012 1:34:52 AM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Fluoranthene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Fluorene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Hexachlorobenzene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Hexachlorobutadiene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Hexachloroethane	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Isophorone	ND	10		µg/L	1	10/12/2012 1:34:52 AM
1-Methylnaphthalene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
2-Methylnaphthalene	ND	10		µg/L	1	10/12/2012 1:34:52 AM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210372-028 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-7 GW
Collection Date: 10/4/2012 4:55:00 PM
Received Date: 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Methylphenol	ND	10		µg/L	1	10/12/2012 1:34:52 AM
3+4-Methylphenol	ND	10		µg/L	1	10/12/2012 1:34:52 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/12/2012 1:34:52 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	10/12/2012 1:34:52 AM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Naphthalene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
2-Nitroaniline	ND	10		µg/L	1	10/12/2012 1:34:52 AM
3-Nitroaniline	ND	10		µg/L	1	10/12/2012 1:34:52 AM
4-Nitroaniline	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Nitrobenzene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
2-Nitrophenol	ND	10		µg/L	1	10/12/2012 1:34:52 AM
4-Nitrophenol	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Pentachlorophenol	ND	20		µg/L	1	10/12/2012 1:34:52 AM
Phenanthrene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Phenol	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Pyrene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Pyridine	ND	10		µg/L	1	10/12/2012 1:34:52 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/12/2012 1:34:52 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/12/2012 1:34:52 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/12/2012 1:34:52 AM
Surr: 2,4,6-Tribromophenol	80.3	44.2-126		%REC	1	10/12/2012 1:34:52 AM
Surr: 2-Fluorobiphenyl	78.3	37-114		%REC	1	10/12/2012 1:34:52 AM
Surr: 2-Fluorophenol	55.5	23.4-98		%REC	1	10/12/2012 1:34:52 AM
Surr: 4-Terphenyl-d14	91.4	41.3-116		%REC	1	10/12/2012 1:34:52 AM
Surr: Nitrobenzene-d5	82.7	39.5-118		%REC	1	10/12/2012 1:34:52 AM
Surr: Phenol-d5	32.0	20.9-95.9		%REC	1	10/12/2012 1:34:52 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
Toluene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
Ethylbenzene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
Methyl tert-butyl ether (MTBE)	14	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,2,4-Trimethylbenzene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,3,5-Trimethylbenzene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,2-Dichloroethane (EDC)	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,2-Dibromoethane (EDB)	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
Naphthalene	ND	4.0		µg/L	2	10/9/2012 8:27:45 PM
1-Methylnaphthalene	ND	8.0		µg/L	2	10/9/2012 8:27:45 PM
2-Methylnaphthalene	ND	8.0		µg/L	2	10/9/2012 8:27:45 PM
Acetone	ND	20		µg/L	2	10/9/2012 8:27:45 PM
Bromobenzene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
Bromodichloromethane	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-7 GW
Project: SWMU NO.1
Collection Date: 10/4/2012 4:55:00 PM
Lab ID: 1210372-028 **Matrix:** AQUEOUS **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Bromoform	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
Bromomethane	ND	6.0		µg/L	2	10/9/2012 8:27:45 PM
2-Butanone	ND	20		µg/L	2	10/9/2012 8:27:45 PM
Carbon disulfide	ND	20		µg/L	2	10/9/2012 8:27:45 PM
Carbon Tetrachloride	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
Chlorobenzene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
Chloroethane	ND	4.0		µg/L	2	10/9/2012 8:27:45 PM
Chloroform	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
Chloromethane	ND	6.0		µg/L	2	10/9/2012 8:27:45 PM
2-Chlorotoluene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
4-Chlorotoluene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
cis-1,2-DCE	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
cis-1,3-Dichloropropene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,2-Dibromo-3-chloropropane	ND	4.0		µg/L	2	10/9/2012 8:27:45 PM
Dibromochloromethane	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
Dibromomethane	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,2-Dichlorobenzene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,3-Dichlorobenzene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,4-Dichlorobenzene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
Dichlorodifluoromethane	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,1-Dichloroethane	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,1-Dichloroethene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,2-Dichloropropane	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,3-Dichloropropane	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
2,2-Dichloropropane	ND	4.0		µg/L	2	10/9/2012 8:27:45 PM
1,1-Dichloropropene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
Hexachlorobutadiene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
2-Hexanone	ND	20		µg/L	2	10/9/2012 8:27:45 PM
Isopropylbenzene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
4-Isopropyltoluene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
4-Methyl-2-pentanone	ND	20		µg/L	2	10/9/2012 8:27:45 PM
Methylene Chloride	ND	6.0		µg/L	2	10/9/2012 8:27:45 PM
n-Butylbenzene	ND	6.0		µg/L	2	10/9/2012 8:27:45 PM
n-Propylbenzene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
sec-Butylbenzene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
Styrene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
tert-Butylbenzene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,1,1,2-Tetrachloroethane	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,1,2,2-Tetrachloroethane	ND	4.0		µg/L	2	10/9/2012 8:27:45 PM
Tetrachloroethene (PCE)	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
trans-1,2-DCE	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
trans-1,3-Dichloropropene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-7 GW
Project: SWMU NO.1
Collection Date: 10/4/2012 4:55:00 PM
Lab ID: 1210372-028 **Matrix:** AQUEOUS **Received Date:** 10/6/2012 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,2,3-Trichlorobenzene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,2,4-Trichlorobenzene	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,1,1-Trichloroethane	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,1,2-Trichloroethane	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
Trichloroethene (TCE)	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
Trichlorofluoromethane	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
1,2,3-Trichloropropane	ND	4.0		µg/L	2	10/9/2012 8:27:45 PM
Vinyl chloride	ND	2.0		µg/L	2	10/9/2012 8:27:45 PM
Xylenes, Total	ND	3.0		µg/L	2	10/9/2012 8:27:45 PM
Surr: 1,2-Dichloroethane-d4	96.2	70-130		%REC	2	10/9/2012 8:27:45 PM
Surr: 4-Bromofluorobenzene	95.8	70-130		%REC	2	10/9/2012 8:27:45 PM
Surr: Dibromofluoromethane	99.8	70-130		%REC	2	10/9/2012 8:27:45 PM
Surr: Toluene-d8	93.7	70-130		%REC	2	10/9/2012 8:27:45 PM

Qualifiers:

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

Anatek Labs, Inc.

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

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

Batch #: 121009050
Project Name: 1210372

Analytical Results Report

Sample Number 121009050-001 **Sampling Date** 10/5/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-001D / SWMU 1-1 (2-4) **Sampling Time** 2:10 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	1.26	mg/Kg	0.3	10/18/2012	CRW	EPA 335.4	
%moisture	15.9	Percent				%moisture	

Sample Number 121009050-002 **Sampling Date** 10/5/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-002B / SWMU 1-1 (10-12) **Sampling Time** 2:15 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/18/2012	CRW	EPA 335.4	
%moisture	16.9	Percent				%moisture	

Sample Number 121009050-003 **Sampling Date** 10/5/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-003C / SWMU 1-1 (13-14) **Sampling Time** 2:30 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/18/2012	CRW	EPA 335.4	
%moisture	10.5	Percent				%moisture	

Sample Number 121009050-004 **Sampling Date** 10/5/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-004D / SWMU 1-8 (16-18)DUP **Sampling Time** 11:10 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/18/2012	CRW	EPA 335.4	
%moisture	12.4	Percent				%moisture	

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

Batch #: 121009050
Project Name: 1210372

Analytical Results Report

Sample Number 121009050-005 **Sampling Date** 10/5/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-005D / SWMU 1-8 (19-20) **Sampling Time** 11:25 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/18/2012	CRW	EPA 335.4	
%moisture	12.7	Percent				%moisture	

Sample Number 121009050-006 **Sampling Date** 10/5/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-006D / SWMU 1-8 (4-6) **Sampling Time** 10:20 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/18/2012	CRW	EPA 335.4	
%moisture	14.5	Percent				%moisture	

Sample Number 121009050-007 **Sampling Date** 10/5/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-007D / SWMU 1-8 (10-12) **Sampling Time** 10:30 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.612	mg/Kg	0.3	10/18/2012	CRW	EPA 335.4	
%moisture	6.5	Percent				%moisture	

Sample Number 121009050-008 **Sampling Date** 10/5/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-008E / SWMU 1-8 (12-14) **Sampling Time** 10:40 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.395	mg/Kg	0.3	10/18/2012	CRW	EPA 335.4	
%moisture	14.9	Percent				%moisture	

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

Batch #: 121009050
Project Name: 1210372

Analytical Results Report

Sample Number 121009050-009 **Sampling Date** 10/5/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-009D / SWMU 1-8 (16-18) **Sampling Time** 11:10 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/18/2012	CRW	EPA 335.4	
%moisture	12.6	Percent				%moisture	

Sample Number 121009050-010 **Sampling Date** 10/5/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-010F / EB100512 **Sampling Time** 5:40 PM
Matrix Water **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	10/18/2012	CRW	EPA 335.4	

Sample Number 121009050-011 **Sampling Date** 10/5/2012 **Date/Time Received** 10/9/2012 12:24 P.
Client Sample ID 1210372-012B / SWMU 1-4 GW **Sampling Time** 7:45 AM
Matrix Water **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0211	mg/L	0.01	10/18/2012	CRW	EPA 335.4	

Sample Number 121009050-012 **Sampling Date** 10/5/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-014F / SWMU 1-8 GW **Sampling Time** 4:05 PM
Matrix Water **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0180	mg/L	0.01	10/18/2012	CRW	EPA 335.4	

Sample Number 121009050-013 **Sampling Date** 10/4/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-015D / SWMU 1-7 (16-18) **Sampling Time** 4:40 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/17/2012	CRW	EPA 335.4	
%moisture	15.5	Percent				%moisture	

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0026; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

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

Batch #: 121009050
Project Name: 1210372

Analytical Results Report

Sample Number 121009050-014 **Sampling Date** 10/4/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-016D / SWMU 1-6 (10-11) **Sampling Time** 11:45 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/17/2012	CRW	EPA 335.4	
%moisture	16.2	Percent				%moisture	

Sample Number 121009050-015 **Sampling Date** 10/4/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-017D / SWMU 1-6 (11-12) **Sampling Time** 11:55 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/17/2012	CRW	EPA 335.4	
%moisture	14.6	Percent				%moisture	

Sample Number 121009050-016 **Sampling Date** 10/4/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-018D / SWMU 1-7 (12-14) **Sampling Time** 1:55 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/17/2012	CRW	EPA 335.4	
%moisture	16.1	Percent				%moisture	

Sample Number 121009050-017 **Sampling Date** 10/4/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-019D / SWMU 1-7 (14-16) **Sampling Time** 2:15 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/17/2012	CRW	EPA 335.4	
%moisture	21.8	Percent				%moisture	

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

Batch #: 121009050
Project Name: 1210372

Analytical Results Report

Sample Number 121009050-018 **Sampling Date** 10/4/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-020C / SWMU 1-6 (2-4) **Sampling Time** 10:55 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/17/2012	CRW	EPA 335.4	
%moisture	3.2	Percent				%moisture	

Sample Number 121009050-019 **Sampling Date** 10/4/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-021C / SWMU 1-6 (2-4) DUP **Sampling Time** 10:55 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/17/2012	CRW	EPA 335.4	
%moisture	2.8	Percent				%moisture	

Sample Number 121009050-020 **Sampling Date** 10/4/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-022D / SWMU 1-6 (4-6) **Sampling Time** 11:15 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/17/2012	CRW	EPA 335.4	
%moisture	15.2	Percent				%moisture	

Sample Number 121009050-021 **Sampling Date** 10/4/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-023D / SWMU 1-6 (7.5-8) **Sampling Time** 11:30 AM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/17/2012	CRW	EPA 335.4	
%moisture	22.1	Percent				%moisture	

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

Batch #: 121009050
Project Name: 1210372

Analytical Results Report

Sample Number 121009050-022 **Sampling Date** 10/4/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-024F / EB100412 **Sampling Time** 5:25 PM
Matrix Water **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	10/18/2012	CRW	EPA 335.4	

Sample Number 121009050-023 **Sampling Date** 10/4/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-027E / SWMU 1-6 GW **Sampling Time** 4:05 PM
Matrix Water **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0282	mg/L	0.01	10/18/2012	CRW	EPA 335.4	

Sample Number 121009050-024 **Sampling Date** 10/4/2012 **Date/Time Received** 10/9/2012 12:24 PM
Client Sample ID 1210372-028E / SWMU 1-7 GW **Sampling Time** 4:55 PM
Matrix Water **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0515	mg/L	0.01	10/18/2012	CRW	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R6141**	RunNo: **6141**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **176939** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R6141**	RunNo: **6141**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **176940** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Beryllium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.50	0.0020	0.5000	0	100	85	115			
Chromium	0.49	0.0060	0.5000	0	97.3	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.2	85	115			
Iron	0.49	0.020	0.5000	0	98.1	85	115			
Manganese	0.49	0.0020	0.5000	0	97.7	85	115			
Nickel	0.47	0.010	0.5000	0	94.9	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Vanadium	0.51	0.050	0.5000	0	101	85	115			

Sample ID **1210368-001BMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R6141**	RunNo: **6141**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177005** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0.02430	96.8	70	130			
Beryllium	0.51	0.0020	0.5000	0	102	70	130			
Cadmium	0.49	0.0020	0.5000	0	97.8	70	130			

Sample ID **1210368-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R6141**	RunNo: **6141**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177006** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0.02430	97.1	70	130	0.302	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	1210368-001BMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Metals				
Client ID:	BatchQC	Batch ID:	R6141	RunNo:	6141				
Prep Date:		Analysis Date:	10/10/2012	SeqNo:	177006	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	0.52	0.0020	0.5000	0	103	70	130	0.724	20	
Cadmium	0.50	0.0020	0.5000	0	99.0	70	130	1.24	20	

Sample ID	MB-4223	SampType:	MBLK	TestCode:	EPA Method 200.7: Metals				
Client ID:	PBW	Batch ID:	4223	RunNo:	6141				
Prep Date:	10/10/2012	Analysis Date:	10/10/2012	SeqNo:	177028	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
[illegible]um	ND	0.050								
Zinc	ND	0.010								

Sample ID	LCS-4223	SampType:	LCS	TestCode:	EPA Method 200.7: Metals				
Client ID:	LCSW	Batch ID:	4223	RunNo:	6141				
Prep Date:	10/10/2012	Analysis Date:	10/10/2012	SeqNo:	177029	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	99.0	85	115			
Beryllium	0.52	0.0020	0.5000	0	104	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	98.2	85	115			
Cobalt	0.49	0.0060	0.5000	0	97.1	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Manganese	0.49	0.0020	0.5000	0	98.3	85	115			
Nickel	0.48	0.010	0.5000	0	96.2	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Vanadium	0.51	0.050	0.5000	0	102	85	115			
Zinc	0.49	0.010	0.5000	0	97.9	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Metals				
Client ID:	PBW	Batch ID:	R6212	RunNo:	6212				
Prep Date:		Analysis Date:	10/12/2012	SeqNo:	178907	Units:	mg/L		

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

[illegible]fiers:

[illegible]	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R6212**	RunNo: **6212**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178907** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R6212**	RunNo: **6212**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178908** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.51	0.010	0.5000	0	101	85	115			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	MB-4223	SampType:	MBLK	TestCode:	EPA 200.8: Metals				
Client ID:	PBW	Batch ID:	4223	RunNo:	6249				
Prep Date:	10/10/2012	Analysis Date:	10/15/2012	SeqNo:	179959	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0025								
Arsenic	ND	0.0025								
Lead	ND	0.0025								
Selenium	ND	0.0025								

Sample ID	1210046-001AMS	SampType:	MS	TestCode:	EPA 200.8: Metals				
Client ID:	BatchQC	Batch ID:	R6315	RunNo:	6315				
Prep Date:		Analysis Date:	10/17/2012	SeqNo:	181878	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.001891	99.5	70	130			

Sample ID	1210367-001BMS	SampType:	MS	TestCode:	EPA 200.8: Metals				
Client ID:	BatchQC	Batch ID:	R6315	RunNo:	6315				
Prep Date:		Analysis Date:	10/17/2012	SeqNo:	181885	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
[illegible]ny	0.025	0.0010	0.02500	0	98.6	70	130			
[illegible]c	0.035	0.0010	0.02500	0.01018	101	70	130			
Selenium	0.031	0.0010	0.02500	0.005490	104	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Metals				
Client ID:	LCSW	Batch ID:	R6315	RunNo:	6315				
Prep Date:		Analysis Date:	10/17/2012	SeqNo:	181905	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	101	85	115			
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
Lead	0.025	0.0010	0.02500	0	99.9	85	115			
Selenium	0.026	0.0010	0.02500	0	106	85	115			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Metals				
Client ID:	LCSW	Batch ID:	R6315	RunNo:	6315				
Prep Date:		Analysis Date:	10/17/2012	SeqNo:	181906	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	101	85	115			
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
Lead	0.025	0.0010	0.02500	0	99.6	85	115			
Selenium	0.027	0.0010	0.02500	0	106	85	115			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181907** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.024	0.0010	0.02500	0	96.7	85	115			
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Lead	0.025	0.0010	0.02500	0	100	85	115			
Selenium	0.026	0.0010	0.02500	0	106	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181909** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181910** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181911** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **1210585-001CMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181948** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.026	0.0010	0.02500	0	103	70	130			
Arsenic	0.026	0.0010	0.02500	0	102	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	**1210585-001CMS**	SampType: **MS**		TestCode: **EPA 200.8: Metals**						
Client ID:	**BatchQC**	Batch ID: **R6315**		RunNo: **6315**						
Prep Date:		Analysis Date: **10/17/2012**		SeqNo: **181948**		Units: **mg/L**				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead		0.025	0.0010	0.02500	0	99.7	70	130			
Selenium		0.026	0.0010	0.02500	0	105	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4279**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **4279**	RunNo: **6215**
Prep Date: **10/12/2012**	Analysis Date: **10/12/2012**	SeqNo: **179065** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-4279**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **4279**	RunNo: **6215**
Prep Date: **10/12/2012**	Analysis Date: **10/12/2012**	SeqNo: **179066** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.0	80	120			

Sample ID **1210332-010EMS**	SampType: **MS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **4279**	RunNo: **6215**
Prep Date: **10/12/2012**	Analysis Date: **10/12/2012**	SeqNo: **179069** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.9	75	125			

Sample ID **1210332-010EMSD**	SampType: **MSD**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **4279**	RunNo: **6215**
Prep Date: **10/12/2012**	Analysis Date: **10/12/2012**	SeqNo: **179072** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.7	75	125	0.749	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R6070**	RunNo: **6070**							
Prep Date:	Analysis Date: **10/8/2012**	SeqNo: **175019**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R6070**	RunNo: **6070**							
Prep Date:	Analysis Date: **10/8/2012**	SeqNo: **175020**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	98.3	90	110			
Sulfate	9.3	0.50	10.00	0	93.4	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R6156**	RunNo: **6156**							
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177358**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R6156**	RunNo: **6156**							
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177359**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	103	90	110			
Sulfate	10	0.50	10.00	0	99.9	90	110			

Sample ID **1210304-001AMS10**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R6156**	RunNo: **6156**							
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177370**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	6.02	1.00	5.000	1.010	100	76.6	110			
Sulfate	442	5.00	100.0	337.1	105	84.6	122			

Sample ID **1210304-001AMSD1**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **BatchQC**	Batch ID: **R6156**	RunNo: **6156**							
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177371**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	5.89	1.00	5.000	1.010	97.6	76.6	110	2.08	20	
Sulfate	433	5.00	100.0	337.1	95.7	84.6	122	2.08	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210527-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6156**	RunNo: **6156**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177384** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.0	0.10	0.5000	0.5805	92.9	76.6	110			

Sample ID **1210527-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6156**	RunNo: **6156**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177385** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.1	0.10	0.5000	0.5805	95.6	76.6	110	1.28	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6156**	RunNo: **6156**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177422** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6156**	RunNo: **6156**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177423** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.53	0.10	0.5000	0	106	90	110			
Sulfate	9.9	0.50	10.00	0	99.3	90	110			

Sample ID **1210550-001DMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6156**	RunNo: **6156**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177425** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.1	0.10	0.5000	0.4517	137	76.6	110			S

Sample ID **1210550-001DMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6156**	RunNo: **6156**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177426** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.1	0.10	0.5000	0.4517	132	76.6	110	2.25	20	S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R6177	RunNo:	6177					
Prep Date:		Analysis Date:	10/11/2012	SeqNo:	178038	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R6177	RunNo:	6177					
Prep Date:		Analysis Date:	10/11/2012	SeqNo:	178039	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.2	90	110			

Sample ID	1210607-001AMS	SampType:	MS	TestCode:	EPA Method 300.0: Anions					
Client ID:	BatchQC	Batch ID:	R6177	RunNo:	6177					
Prep Date:		Analysis Date:	10/11/2012	SeqNo:	178041	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.5	0.50	5.000	4.628	97.8	87.8	111			

Sample ID	1210607-001AMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions					
t ID:	BatchQC	Batch ID:	R6177	RunNo:	6177					
Prep Date:		Analysis Date:	10/11/2012	SeqNo:	178042	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	9.6	0.50	5.000	4.628	98.5	87.8	111	0.323	20	

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R6330	RunNo:	6330					
Prep Date:		Analysis Date:	10/17/2012	SeqNo:	182236	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R6330	RunNo:	6330					
Prep Date:		Analysis Date:	10/17/2012	SeqNo:	182237	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	96.6	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4180**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4180**	RunNo: **6071**
Prep Date: **10/8/2012**	Analysis Date: **10/9/2012**	SeqNo: **175091** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		107	77.6	140			

Sample ID **LCS-4180**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4180**	RunNo: **6071**
Prep Date: **10/8/2012**	Analysis Date: **10/9/2012**	SeqNo: **175092** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	32	10	50.00	0	64.7	52.6	130			
Surr: DNOP	5.1		5.000		101	77.6	140			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4170**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **4170**	RunNo: **6037**
Prep Date: **10/8/2012**	Analysis Date: **10/8/2012**	SeqNo: **174724** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		113	79.5	166			

Sample ID **LCS-4170**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **4170**	RunNo: **6037**
Prep Date: **10/8/2012**	Analysis Date: **10/8/2012**	SeqNo: **174725** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	3.8	1.0	5.000	0	75.1	74	157			
Surr: DNOP	0.50		0.5000		101	79.5	166			

Sample ID **LCSD-4170**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **4170**	RunNo: **6037**
Prep Date: **10/8/2012**	Analysis Date: **10/8/2012**	SeqNo: **174726** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Range Organics (DRO)	4.0	1.0	5.000	0	80.9	74	157	7.55	23	
: DNOP	0.52		0.5000		103	79.5	166	0	0	

Qualifiers:

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **R6073**	RunNo: **6073**
Prep Date:	Analysis Date: **10/8/2012**	SeqNo: **175096** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		101	84	116			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R6073**	RunNo: **6073**
Prep Date:	Analysis Date: **10/8/2012**	SeqNo: **175097** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.0	74	117			
Surr: BFB	1100		1000		106	84	116			

Sample ID **MB-4212**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **4212**	RunNo: **6152**
Prep Date: **10/9/2012**	Analysis Date: **10/10/2012**	SeqNo: **177240** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		105	84	116			

Sample ID **LCS-4212**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **4212**	RunNo: **6152**
Prep Date: **10/9/2012**	Analysis Date: **10/10/2012**	SeqNo: **177241** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	74	117			
Surr: BFB	1100		1000		111	84	116			

Sample ID **1210474-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **4212**	RunNo: **6152**
Prep Date: **10/9/2012**	Analysis Date: **10/10/2012**	SeqNo: **177245** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	71	24	24.34	43.50	114	70	130			
Surr: BFB	5400		4869		112	84	116			

Sample ID **1210474-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **4212**	RunNo: **6152**
Prep Date: **10/9/2012**	Analysis Date: **10/10/2012**	SeqNo: **177246** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	78	24	24.18	43.50	145	70	130	9.76	22.1	S
Surr: BFB	5300		4836		110	84	116	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R6154**	RunNo: **6154**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177292** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	22		20.00		110	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R6154**	RunNo: **6154**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177314** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.48	0.050	0.5000	0	95.6	75.9	119			
Surr: BFB	24		20.00		118	69.8	119			

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R6187**	RunNo: **6187**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178251** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		86.5	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R6187**	RunNo: **6187**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178252** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	91.8	75.9	119			
Surr: BFB	20		20.00		97.8	69.8	119			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4203**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4203**	RunNo: **6147**
Prep Date: **10/9/2012**	Analysis Date: **10/9/2012**	SeqNo: **177089** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
Naphthalene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
2-Butanone	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4203**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4203**	RunNo: **6147**
Prep Date: **10/9/2012**	Analysis Date: **10/9/2012**	SeqNo: **177089** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
richlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	45.0		50.00		89.9	70	130			
Surr: 4-Bromofluorobenzene	46.4		50.00		92.9	70	130			
Surr: Dibromofluoromethane	49.1		50.00		98.2	70	130			
Surr: Toluene-d8	50.9		50.00		102	70	130			

Sample ID **lcs-4203**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4203**	RunNo: **6147**
Prep Date: **10/9/2012**	Analysis Date: **10/9/2012**	SeqNo: **177092** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	12.6	1.00	12.50	0	101	60	140			
Toluene	10.8	1.00	12.50	0	86.5	60	140			
Chlorobenzene	12.3	1.00	12.50	0	98.5	60	140			
1,1-Dichloroethene	12.9	1.00	12.50	0	103	60	140			
Trichloroethene (TCE)	12.0	1.00	12.50	0	95.8	60	140			
Surr: 1,2-Dichloroethane-d4	44.0		50.00		88.0	70	130			
Surr: 4-Bromofluorobenzene	48.2		50.00		96.4	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4203**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4203**	RunNo: **6147**
Prep Date: **10/9/2012**	Analysis Date: **10/9/2012**	SeqNo: **177092** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	48.2		50.00		96.3	70	130			
Surr: Toluene-d8	43.7		50.00		87.4	70	130			

Sample ID **MB-4229**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4229**	RunNo: **6153**
Prep Date: **10/10/2012**	Analysis Date: **10/10/2012**	SeqNo: **177265** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
Naphthalene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
2-Butanone	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4229**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4229**	RunNo: **6153**
Prep Date: **10/10/2012**	Analysis Date: **10/10/2012**	SeqNo: **177265** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
S[illegible]e	ND	0.00100								
[illegible]yl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	45.5		50.00		90.9	70	130			
Surr: 4-Bromofluorobenzene	48.6		50.00		97.2	70	130			
Surr: Dibromofluoromethane	50.8		50.00		102	70	130			
Surr: Toluene-d8	44.6		50.00		89.3	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **LCS-4229**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4229**	RunNo: **6153**
Prep Date: **10/10/2012**	Analysis Date: **10/10/2012**	SeqNo: **177267** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	8.19	1.00	8.000	0	102	60	140			
Toluene	8.34	1.00	8.000	0	104	60	140			
Chlorobenzene	8.45	1.00	8.000	0	106	60	140			
1,1-Dichloroethene	9.31	1.00	8.000	0	116	60	140			
Trichloroethene (TCE)	6.81	1.00	8.000	0	85.1	60	140			
Surr: 1,2-Dichloroethane-d4	47.6		50.00		95.2	70	130			
Surr: 4-Bromofluorobenzene	45.3		50.00		90.5	70	130			
Surr: Dibromofluoromethane	51.1		50.00		102	70	130			
Surr: Toluene-d8	51.1		50.00		102	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6105**	RunNo: **6105**
Prep Date:	Analysis Date: **10/9/2012**	SeqNo: **175988** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-[illegible]none	ND	10								
[illegible] disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6105**	RunNo: **6105**
Prep Date:	Analysis Date: **10/9/2012**	SeqNo: **175988** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.8	70	130			
Surr: Toluene-d8	9.8		10.00		97.7	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6105**	RunNo: **6105**
Prep Date:	Analysis Date: **10/9/2012**	SeqNo: **175990** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	116	70	130			
Toluene	21	1.0	20.00	0	105	80	120			
Chlorobenzene	21	1.0	20.00	0	107	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	109	73.7	122			
Trichloroethene (TCE)	20	1.0	20.00	0	98.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6105**	RunNo: **6105**
Prep Date:	Analysis Date: **10/9/2012**	SeqNo: **175990** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.6		10.00		95.8	70	130			
Surr: Toluene-d8	9.7		10.00		96.7	70	130			

Sample ID **1210372-010ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **EB100512**	Batch ID: **R6105**	RunNo: **6105**
Prep Date:	Analysis Date: **10/9/2012**	SeqNo: **175992** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	114	66.8	128			
Toluene	21	1.0	20.00	0	107	70	130			
Chlorobenzene	22	1.0	20.00	0	109	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	107	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	97.1	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.3	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		95.6	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.1	70	130			
Surr: Toluene-d8	9.5		10.00		94.8	70	130			

Sample ID **1210372-010amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **EB100512**	Batch ID: **R6105**	RunNo: **6105**
Prep Date:	Analysis Date: **10/9/2012**	SeqNo: **175993** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	108	66.8	128	5.11	16.7	
Toluene	22	1.0	20.00	0	108	70	130	1.42	18.7	
Chlorobenzene	22	1.0	20.00	0	108	70	130	0.698	19.5	
1,1-Dichloroethene	19	1.0	20.00	0	95.6	70	130	11.7	16.7	
Trichloroethene (TCE)	18	1.0	20.00	0	92.4	70	130	4.97	17.5	
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.5		10.00		95.4	70	130	0	0	
Surr: Dibromofluoromethane	9.3		10.00		93.0	70	130	0	0	
Surr: Toluene-d8	9.8		10.00		98.2	70	130	0	0	

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6155**	RunNo: **6155**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177325** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6155**	RunNo: **6155**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177325** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6155**	RunNo: **6155**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177325** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.2	70	130			
Surr: Toluene-d8	9.5		10.00		94.7	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6155**	RunNo: **6155**
Prep Date:	Analysis Date: **10/10/2012**	SeqNo: **177328** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.9	70	130			
Toluene	19	1.0	20.00	0	93.4	80	120			
Chlorobenzene	19	1.0	20.00	0	94.5	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.9	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	84.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.2	70	130			
Surr: Toluene-d8	9.5		10.00		94.7	70	130			

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6255**	RunNo: **6255**
Prep Date:	Analysis Date: **10/15/2012**	SeqNo: **180303** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6255**	RunNo: **6255**
Prep Date:	Analysis Date: **10/15/2012**	SeqNo: **180303** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
richloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.1	70	130			
Surr: Toluene-d8	9.9		10.00		99.3	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6255**	RunNo: **6255**
Prep Date:	Analysis Date: **10/15/2012**	SeqNo: **180305** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	109	70	130			
Toluene	21	1.0	20.00	0	105	80	120			
Chlorobenzene	21	1.0	20.00	0	107	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	92.3	73.7	122			
Trichloroethene (TCE)	19	1.0	20.00	0	92.6	70	130			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.2	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.7	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6255**	RunNo: **6255**
Prep Date:	Analysis Date: **10/15/2012**	SeqNo: **180305** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.0		10.00		90.3	70	130			
Surr: Toluene-d8	9.4		10.00		93.9	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4168**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4168**	RunNo: **6106**
Prep Date: **10/8/2012**	Analysis Date: **10/10/2012**	SeqNo: **176042** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
enzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4168**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4168**	RunNo: **6106**
Prep Date: **10/8/2012**	Analysis Date: **10/10/2012**	SeqNo: **176042** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	2.8		3.330		84.5	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.670		88.5	20	131			
Surr: 2-Fluorophenol	2.9		3.330		85.8	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		77.1	25.1	149			
Surr: Nitrobenzene-d5	1.5		1.670		90.5	25.6	137			
Surr: Phenol-d5	3.1		3.330		94.0	20.3	132			

Sample ID **lcs-4168**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4168**	RunNo: **6106**
Prep Date: **10/8/2012**	Analysis Date: **10/10/2012**	SeqNo: **176043** Units: **mg/Kg**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4168**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4168**	RunNo: **6106**
Prep Date: **10/8/2012**	Analysis Date: **10/10/2012**	SeqNo: **176043** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.3	0.20	1.670	0	77.2	49.7	98.1			
4-Chloro-3-methylphenol	2.9	0.50	3.330	0	87.8	43.8	89.1			
2-Chlorophenol	2.8	0.20	3.330	0	83.6	41.1	96.9			
1,4-Dichlorobenzene	1.3	0.20	1.670	0	75.1	41	97.4			
2,4-Dinitrotoluene	1.7	0.50	1.670	0	99.6	44.4	104			
N-Nitrosodi-n-propylamine	1.5	0.20	1.670	0	88.3	39.1	86.9			S
4-Nitrophenol	3.0	0.25	3.330	0	88.8	44.2	107			
Pentachlorophenol	2.1	0.40	3.330	0	64.1	36.2	80			
Phenol	2.7	0.20	3.330	0	80.3	42.7	92.7			
Pyrene	1.2	0.20	1.670	0	74.5	34.7	98.8			
1,2,4-Trichlorobenzene	1.3	0.20	1.670	0	77.2	37.8	98.3			
Surr: 2,4,6-Tribromophenol	2.9		3.330		87.4	21.3	145			
Surr: 2-Fluorobiphenyl	1.4		1.670		85.7	20	131			
Surr: 2-Fluorophenol	2.6		3.330		77.1	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		74.9	25.1	149			
Surr: Nitrobenzene-d5	1.4		1.670		82.0	25.6	137			
Surr: Phenol-d5	2.8		3.330		83.8	20.3	132			

Sample ID **1210372-001BMS**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **SWMU 1-1 (2-4')**	Batch ID: **4168**	RunNo: **6106**
Prep Date: **10/8/2012**	Analysis Date: **10/10/2012**	SeqNo: **177069** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	2.1	1.0	1.673	0	127	38.6	100			S
4-Chloro-3-methylphenol	2.5	2.5	3.336	0	75.3	35.8	108			
2-Chlorophenol	2.2	1.0	3.336	0	65.8	48.2	96.1			
1,4-Dichlorobenzene	ND	1.0	1.673	0	57.2	42.5	97.6			
2,4-Dinitrotoluene	ND	2.5	1.673	0	65.9	51.2	108			
N-Nitrosodi-n-propylamine	ND	1.0	1.673	0	0	31.6	114			S
4-Nitrophenol	ND	1.3	3.336	0	0	22.7	144			S
Pentachlorophenol	ND	2.0	3.336	0	53.4	24	109			
Phenol	2.0	1.0	3.336	0	61.3	33.1	108			
Pyrene	1.7	1.0	1.673	1.458	12.8	42.7	98.9			S
1,2,4-Trichlorobenzene	1.1	1.0	1.673	0	68.7	27.1	118			
Surr: 2,4,6-Tribromophenol	1.8		3.336		55.0	21.3	145			
Surr: 2-Fluorobiphenyl	1.2		1.673		69.0	20	131			
Surr: 2-Fluorophenol	2.1		3.336		62.7	11.9	130			
Surr: 4-Terphenyl-d14	1.2		1.673		73.7	25.1	149			
Surr: Nitrobenzene-d5	0		1.673		0	25.6	137			S
Surr: Phenol-d5	2.2		3.336		67.4	20.3	132			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210372-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **SWMU 1-1 (2-4')**	Batch ID: **4168**	RunNo: **6106**
Prep Date: **10/8/2012**	Analysis Date: **10/10/2012**	SeqNo: **177070** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	2.2	0.99	1.661	0	132	38.6	100	3.07	20	S
4-Chloro-3-methylphenol	2.8	2.5	3.312	0	85.5	35.8	108	12.0	20	
2-Chlorophenol	2.5	0.99	3.312	0	76.2	48.2	96.1	14.0	20	
1,4-Dichlorobenzene	1.1	0.99	1.661	0	65.5	42.5	97.6	12.8	20	
2,4-Dinitrotoluene	ND	2.5	1.661	0	63.3	51.2	108	0	20	
N-Nitrosodi-n-propylamine	ND	0.99	1.661	0	0	31.6	114	0	20	S
4-Nitrophenol	3.5	1.2	3.312	0	107	22.7	144	200	20	R
Pentachlorophenol	ND	2.0	3.312	0	59.1	24	109	0	20	
Phenol	2.4	0.99	3.312	0	73.9	33.1	108	18.0	20	
Pyrene	2.0	0.99	1.661	1.458	31.7	42.7	98.9	17.1	20	S
1,2,4-Trichlorobenzene	1.2	0.99	1.661	0	75.0	27.1	118	8.06	20	
Surr: 2,4,6-Tribromophenol	2.3		3.312		70.5	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.3		1.661		79.0	20	131	0	0	
Surr: 2-Fluorophenol	2.5		3.312		74.6	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.3		1.661		78.0	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.3		1.661		80.2	25.6	137	0	0	
Surr: Phenol-d5	2.7		3.312		82.1	20.3	132	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4189**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4189**	RunNo: **6186**
Prep Date: **10/9/2012**	Analysis Date: **10/11/2012**	SeqNo: **178221** Units: **µg/L**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4189**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4189**	RunNo: **6186**
Prep Date: **10/9/2012**	Analysis Date: **10/11/2012**	SeqNo: **178221** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	170		200.0		87.2	44.2	126			
Surr: 2-Fluorobiphenyl	66		100.0		66.3	37	114			
Surr: 2-Fluorophenol	140		200.0		70.4	23.4	98			
Surr: 4-Terphenyl-d14	73		100.0		72.8	41.3	116			
Surr: Nitrobenzene-d5	86		100.0		86.0	39.5	118			
Surr: Phenol-d5	100		200.0		52.1	20.9	95.9			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4189**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**							
Client ID: **LCSW**	Batch ID: **4189**	RunNo: **6186**							
Prep Date: **10/9/2012**	Analysis Date: **10/11/2012**	SeqNo: **178222**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	64	10	100.0	0	63.6	38.2	99.4			
4-Chloro-3-methylphenol	160	10	200.0	0	78.0	35.5	108			
2-Chlorophenol	140	10	200.0	0	69.7	29.8	106			
1,4-Dichlorobenzene	60	10	100.0	0	60.1	32.6	91.5			
2,4-Dinitrotoluene	85	10	100.0	0	84.9	44.7	112			
N-Nitrosodi-n-propylamine	84	10	100.0	0	83.9	38.5	105			
4-Nitrophenol	100	10	200.0	0	50.2	11.6	73.1			
Pentachlorophenol	120	20	200.0	0	62.2	20.2	93			
Phenol	84	10	200.0	0	42.1	23	66.1			
Pyrene	68	10	100.0	0	67.8	40.1	101			
1,2,4-Trichlorobenzene	65	10	100.0	0	64.8	37.7	99.1			
Surr: 2,4,6-Tribromophenol	180		200.0		89.1	44.2	126			
Surr: 2-Fluorobiphenyl	72		100.0		71.9	37	114			
Surr: 2-Fluorophenol	120		200.0		58.5	23.4	98			
Surr: 4-Terphenyl-d14	73		100.0		72.9	41.3	116			
Surr: Nitrobenzene-d5	79		100.0		78.7	39.5	118			
Surr: Phenol-d5	97		200.0		48.5	20.9	95.9			

Sample ID **lcsd-4189**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**							
Client ID: **LCSS02**	Batch ID: **4189**	RunNo: **6186**							
Prep Date: **10/9/2012**	Analysis Date: **10/11/2012**	SeqNo: **178223**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.9	38.2	99.4	5.09	20	
4-Chloro-3-methylphenol	160	10	200.0	0	80.0	35.5	108	2.51	20	
2-Chlorophenol	130	10	200.0	0	66.7	29.8	106	4.41	20	
1,4-Dichlorobenzene	58	10	100.0	0	57.9	32.6	91.5	3.73	20	
2,4-Dinitrotoluene	88	10	100.0	0	87.8	44.7	112	3.45	20	
N-Nitrosodi-n-propylamine	77	10	100.0	0	76.7	38.5	105	8.99	20	
4-Nitrophenol	100	10	200.0	0	52.4	11.6	73.1	4.27	20	
Pentachlorophenol	120	20	200.0	0	60.4	20.2	93	2.94	20	
Phenol	89	10	200.0	0	44.4	23	66.1	5.20	20	
Pyrene	69	10	100.0	0	69.2	40.1	101	2.10	20	
1,2,4-Trichlorobenzene	63	10	100.0	0	62.7	37.7	99.1	3.29	20	
Surr: 2,4,6-Tribromophenol	170		200.0		82.5	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	68		100.0		67.8	37	114	0	0	
Surr: 2-Fluorophenol	120		200.0		59.0	23.4	98	0	0	
Surr: 4-Terphenyl-d14	69		100.0		68.7	41.3	116	0	0	
Surr: Nitrobenzene-d5	75		100.0		75.3	39.5	118	0	0	
Surr: Phenol-d5	97		200.0		48.7	20.9	95.9	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	MB-4227	SampType:	MBLK		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	4227		RunNo:	6170				
Prep Date:	10/10/2012	Analysis Date:	10/11/2012		SeqNo:	177797	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-4227	SampType:	LCS		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	4227		RunNo:	6170				
Prep Date:	10/10/2012	Analysis Date:	10/11/2012		SeqNo:	177798	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1667	0	98.5	80	120			

Sample ID	1210372-017CMS	SampType:	MS		TestCode:	EPA Method 7471: Mercury				
Client ID:	SWMU 1-6 (11-12')	Batch ID:	4227		RunNo:	6170				
Prep Date:	10/10/2012	Analysis Date:	10/11/2012		SeqNo:	177823	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1674	0	104	75	125			

Sample ID	1210372-017CMSD	SampType:	MSD		TestCode:	EPA Method 7471: Mercury				
Client ID:	SWMU 1-6 (11-12')	Batch ID:	4227		RunNo:	6170				
Prep Date:	10/10/2012	Analysis Date:	10/11/2012		SeqNo:	177824	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1653	0	104	75	125	1.11	20	

Sample ID	MB-4314	SampType:	mblk		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	4314		RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012		SeqNo:	180677	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-4314	SampType:	lcs		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	4314		RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012		SeqNo:	180678	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	100	80	120			

Sample ID	1210582-006CMS	SampType:	ms		TestCode:	EPA Method 7471: Mercury				
Client ID:	BatchQC	Batch ID:	4314		RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012		SeqNo:	180706	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1669	0.01973	92.8	75	125			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	**1210582-006CMSD**	SampType:	**msd**		TestCode:	**EPA Method 7471: Mercury**				
Client ID:	**BatchQC**	Batch ID:	**4314**		RunNo:	**6270**				
Prep Date:	**10/15/2012**	Analysis Date:	**10/16/2012**		SeqNo:	**180707**	Units:	**mg/kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1660	0.01973	95.3	75	125	1.94	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210372**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4191**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **4191**	RunNo: **6163**
Prep Date: **10/9/2012**	Analysis Date: **10/11/2012**	SeqNo: **177648** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Iron	ND	1.0								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID **LCS-4191**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **4191**	RunNo: **6163**
Prep Date: **10/9/2012**	Analysis Date: **10/11/2012**	SeqNo: **177649** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	25	2.5	25.00	0	99.4	80	120			
Arsenic	25	2.5	25.00	0	99.0	80	120			
Barium	25	0.10	25.00	0	99.6	80	120			
Beryllium	26	0.15	25.00	0	104	80	120			
Cadmium	25	0.10	25.00	0	101	80	120			
Chromium	25	0.30	25.00	0	99.6	80	120			
Cobalt	25	0.30	25.00	0	98.4	80	120			
Iron	25	1.0	25.00	0	102	80	120			
Lead	25	0.25	25.00	0.2260	100	80	120			
Manganese	25	0.10	25.00	0.03150	98.1	80	120			
Nickel	24	0.50	25.00	0	96.4	80	120			
Selenium	23	2.5	25.00	0	92.3	80	120			
Silver	5.1	0.25	5.000	0	101	80	120			
Vanadium	25	2.5	25.00	0	101	80	120			
Zinc	25	2.5	25.00	0	101	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1210372

Received by/date: AF 10/04/12

Logged By: Lindsay Mangin 10/6/2012 8:15:00 AM

Completed By: Lindsay Mangin 10/7/2012 7:15:35 AM

Reviewed By: MG 10/08/12

Chain of Custody

1. Were seals intact? — Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? — Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? — Client

Log In

4. Coolers are present? (see 19. for cooler specific information) — Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? — Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C — Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? — Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? — Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? — Yes ☑ No ☐
10. Was preservative added to bottles? — Yes ☑ No ~~☑~~ NA ☐

Added 2mL HNO_3 to 014E, 027D. Added 1mL to 028D for acceptable pH.

11. VOA vials have zero headspace? — Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? — Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) — Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? — Yes ☑ No ☐
15. Is it clear what analyses were requested? — Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) — Yes ☑ No ☐

# of preserved bottles checked for pH: 6 (<2 or >12 unless noted)
Adjusted? yes
Checked by: MG

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? — Yes ☐ No ☐ NA ☑

Person Notified: ____ Date: ____
By Whom: ____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: ____
Client Instructions: ____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.5	Good	Not Present			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NEW MEXICO 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[ ] Standard [ ] Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE-RPS
On Ice: [ ] No
Sample Temperature: 0.5°C

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210317	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/5/12	1410	SOIL	SWMU 1-1 (2-4')	2 VIALS	MeOH	-001										X						
				3 JARS	—											X	X	X	X			
	1415		SWMU 1-1 (10-12')	2 VIALS	MeOH	-002										X						
				1 JAR	—											X	X	X	X			
	1430		SWMU 1-1 (13-14')	2 VIALS	MeOH	-003										X						
				3 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/6/12	0815			10/6/12	0815
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No.1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: [illegible] Yes [illegible] No
Sample Temperature: [illegible]

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/5/12	1110	SOIL	SWMU 1-8 (16-18') DUP	2 VIALS	5081	-004										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1125	SOIL	SWMU 1-8 (19-20')	2 VIALS	5081	-005										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/6/12	0815	[signature]	[signature]	10/6/12	0815
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: [ ] Yes [ ] No
Sample Temperature: 0.5

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210357
10/5/12	1020	SOIL	SWMU 1-8 (4-6')	2 VIALS	5081	-006
				2 VIALS	MeOH	
				3 JARS	—	
	1030		SWMU 1-8 (10-12')	2 VIALS	5081	-007
				2 VIALS	MeOH	
				1 JAR	—	
	1040		SWMU 1-8 (12-14')	~~2 VIALS~~	~~5081~~	-008
				2 VIALS	MeOH	
				3 JARS	—	
	1110		SWMU 1-8 (16-18')	2 VIALS	5081	-009
				2 VIALS	MeOH	
				3 JARS	—	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			

Remarks:

Date	Time	Relinquished by:	Received by:	Date	Time
10/6/12	0815	[signature]	[signature]	10/6/12	0815
Date:	Time:	Relinquished by:	Received by:	Date	Time

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

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: ☒ Yes ☐ No
Sample Temperature: [illegible]

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/5/12	1740	W	FB100512	6 VOA	HCL	-010										X						
				1 AMBER	—												X					
				1 PLASTIC	HNO_3	-													X			
				1 PLASTIC	NAOH														XX			
				1 PLASTIC	—														XX			
10/5/12	—	W	TRIP BLANK	3 VOA	HCL	-011										X						

Date: 10/6/12 Time: 0815 Relinquished by: [signature] Received by: [signature] Date Time 10/6/12 0815
Date: Time: Relinquished by: Received by: Date Time

Remarks:

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Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No.1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: [ ] No
Sample Temperature: °C

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210312
10/5/12	0745	GW	SWMU 1-4 GW	1 PLASTIC	HNO_3	-012
				1 PLASTIC	NaOH	
				1 PLASTIC	—	
	1520	GW	SWMU 1-5 GW	6 VOA	HCL	-013
				1 AMBER	—	
	1605	GW	SWMU 1-8 GW	6 VOA	HCL	-014
				1 AMBER	—	
				1 PLASTIC	HNO_3	
				1 PLASTIC	NaOH	
				1 PLASTIC	—	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
												X			
												X			
												X			
									X						
										X					
									X						
										X					
												X			
												X			
												X			

Date: 10/6/12 Time: 0815 Relinquished by: [signature]
Received by: [signature] Date Time: 10/6/12 0815
Date: Time: Relinquished by:
Received by: Date Time:

Remarks:

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

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☒ EDD (Type) EXCEL

Turn-Around Time:
☐ Standard ☐ Rush _____
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: ☒ Yes ☐ No
Sample Temperature: 0.6°C

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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210672	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/4/12	1440	SOIL	SWMU 1-7(16-18')	2 VIALS	5081	-015										X						
↓	↓	↓	↓	2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/6/12	0815			10/6/12	0815
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
X Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
X EDD (Type) EXCEL

Turn-Around Time:
X Standard ☐ Rush
Project Name: SWMU No 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: ☐ No
Sample Temperature: 0.5°C

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1203124	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/4/12	1145	SOIL	SWMU 1-6 (10-11')	2 VIALS	5OBI	-016										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1155		SWMU 1-6 (11-12')	2 VIALS	5OBI	-017										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1355		SWMU 1-7 (12-14')	2 VIALS	5OBI	-018										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1415		SWMU 1-7 (14-16')	2 VIALS	5OBI	-019										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			

Date	Time	Relinquished by:	Received by:	Date	Time
10/6/12	0815			10/6/12	0815
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: ☒ Yes ☐ No
Sample Temperature: 0.5 °C

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210312	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)+TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/4/12	1055	SOIL	SWMU 1-6 (2-4')	2 VIALS	SOBI	-020										X						
				2 VIALS	MeOH											X						
				1 JAR	—											X	X	X	X			
			SWMU 1-6 (2-4') DUP	2 VIALS	SOBI	-021										X						
				2 VIALS	MeOH											X						
				1 JAR	—											X	X	X	X			
	1115		SWMU 1-6 (4-6')	2 VIALS	SOBI	-022										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1130		SWMU 1-6 (7.5-8')	2 VIALS	SOBI	-023										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/6/12	0815			10/6/12	0815
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: ☐ Yes ☐ No
Sample Temperature: 0.3 °C

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210572	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/4/12	1725	WATER	EB100412	6 VOA	HCL & HEAT	-024										X						
				1 AMBER	—												X					
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NaOH														X			
				1 PLASTIC	—														X			
10/4/12	—	WATER	TRIP BLANK	3 VOA	HCL	-025										X						

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/6/12	0815			10/6/12	0815
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

...sary, samples submitted to Hall Environmental may be subcontracted to other accredited laborator... ...is serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytic... ...ort.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No.1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: ☐ Yes ☐ No
Sample Temperature: 0.3 °C

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210312	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/4/12	0925	GW	SWMU 1-4 GW	6 VOA	HCL & NEAT	-026										X						
	↓	↓	↓	1 AMBER	—												X					
	1605	GW	SWMU 1-6 GW	6 VOA	HCL & NEAT	-027										X						
				1 AMBER	—												X					
				1 PLASTIC	HNO_3													X				
				1 PLASTIC	NaOH													X				
	↓	↓	↓	1 PLASTIC	—													X				
	1655	GW	SWMU 1-7 GW	6 VOA	HCL & NEAT	-028										X						
				1 AMBER	—												X					
				1 PLASTIC	HNO_3													X				
				1 PLASTIC	NaOH													X				
↓	↓	↓	↓	1 PLASTIC	—													X				

Date: 10/6/12 Time: 0815 Relinquished by: [signature] Received by: [signature] Date: 10/6/12 Time: 0815

Date: Time: Relinquished by: Received by: Date: Time:

Remarks:

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HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

November 12, 2012

Scott Crouch
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.1 OrderNo.: 1210521

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 8 sample(s) on 10/10/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1210521**
Date Reported: **11/12/2012**

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (0-0.5')
Collection Date: 10/8/2012 4:05:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	14	10		mg/Kg	1	10/11/2012 12:01:08 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/11/2012 12:01:08 PM
Surr: DNOP	102	77.6-140		%REC	1	10/11/2012 12:01:08 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/12/2012 2:11:20 PM
Surr: BFB	106	84-116		%REC	1	10/12/2012 2:11:20 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 4:47:23 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/16/2012 3:30:30 PM
Arsenic	ND	12		mg/Kg	5	10/16/2012 3:30:30 PM
Barium	220	1.0		mg/Kg	10	10/16/2012 3:55:33 PM
Beryllium	ND	0.75		mg/Kg	5	10/16/2012 3:30:30 PM
Cadmium	ND	0.50		mg/Kg	5	10/16/2012 3:30:30 PM
Chromium	9.5	1.5		mg/Kg	5	10/16/2012 3:30:30 PM
Cobalt	5.1	1.5		mg/Kg	5	10/16/2012 3:30:30 PM
Iron	20000	500		mg/Kg	500	10/16/2012 3:52:52 PM
Lead	9.3	1.2		mg/Kg	5	10/16/2012 3:30:30 PM
Manganese	520	5.0		mg/Kg	50	10/16/2012 3:50:28 PM
Nickel	9.0	2.5		mg/Kg	5	10/16/2012 3:30:30 PM
Selenium	ND	12		mg/Kg	5	10/16/2012 3:30:30 PM
Silver	ND	1.2		mg/Kg	5	10/16/2012 3:30:30 PM
Vanadium	24	12		mg/Kg	5	10/16/2012 3:30:30 PM
Zinc	34	12		mg/Kg	5	10/16/2012 3:30:30 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Acenaphthylene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Aniline	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Anthracene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Azobenzene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Benz(a)anthracene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Benzo(a)pyrene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Benzo(b)fluoranthene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Benzo(g,h,i)perylene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Benzo(k)fluoranthene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Benzoic acid	ND	2.5		mg/Kg	1	10/12/2012 11:37:43 AM
Benzyl alcohol	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Bis(2-chloroethoxy)methane	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Bis(2-chloroethyl)ether	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Bis(2-chloroisopropyl)ether	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (0-0.5')
Collection Date: 10/8/2012 4:05:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/12/2012 11:37:43 AM
4-Bromophenyl phenyl ether	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Butyl benzyl phthalate	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Carbazole	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/12/2012 11:37:43 AM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/12/2012 11:37:43 AM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	10/12/2012 11:37:43 AM
2-Chlorophenol	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
4-Chlorophenyl phenyl ether	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Chrysene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/12/2012 11:37:43 AM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	10/12/2012 11:37:43 AM
Dibenz(a,h)anthracene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Dibenzofuran	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
1,2-Dichlorobenzene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
1,3-Dichlorobenzene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
1,4-Dichlorobenzene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	10/12/2012 11:37:43 AM
Diethyl phthalate	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Dimethyl phthalate	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/12/2012 11:37:43 AM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/12/2012 11:37:43 AM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/12/2012 11:37:43 AM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/12/2012 11:37:43 AM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/12/2012 11:37:43 AM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/12/2012 11:37:43 AM
Fluoranthene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Fluorene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Hexachlorobenzene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Hexachlorobutadiene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Hexachlorocyclopentadiene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Hexachloroethane	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Indeno(1,2,3-cd)pyrene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Isophorone	ND	2.5		mg/Kg	1	10/12/2012 11:37:43 AM
1-Methylnaphthalene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
2-Methylnaphthalene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
2-Methylphenol	ND	2.5		mg/Kg	1	10/12/2012 11:37:43 AM
3+4-Methylphenol	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
N-Nitrosodi-n-propylamine	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
N-Nitrosodiphenylamine	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Naphthalene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
2-Nitroaniline	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (0-0.5')
Collection Date: 10/8/2012 4:05:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
4-Nitroaniline	ND	2.0		mg/Kg	1	10/12/2012 11:37:43 AM
Nitrobenzene	ND	2.5		mg/Kg	1	10/12/2012 11:37:43 AM
2-Nitrophenol	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
4-Nitrophenol	ND	1.2		mg/Kg	1	10/12/2012 11:37:43 AM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/12/2012 11:37:43 AM
Phenanthrene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Phenol	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Pyrene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Pyridine	ND	2.5		mg/Kg	1	10/12/2012 11:37:43 AM
1,2,4-Trichlorobenzene	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
2,4,5-Trichlorophenol	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
2,4,6-Trichlorophenol	ND	0.99		mg/Kg	1	10/12/2012 11:37:43 AM
Surr: 2,4,6-Tribromophenol	74.0	21.3-145		%REC	1	10/12/2012 11:37:43 AM
Surr: 2-Fluorobiphenyl	65.7	20-131		%REC	1	10/12/2012 11:37:43 AM
Surr: 2-Fluorophenol	68.9	11.9-130		%REC	1	10/12/2012 11:37:43 AM
Surr: 4-Terphenyl-d14	63.6	25.1-149		%REC	1	10/12/2012 11:37:43 AM
Surr: Nitrobenzene-d5	63.3	25.6-137		%REC	1	10/12/2012 11:37:43 AM
Surr: Phenol-d5	70.3	20.3-132		%REC	1	10/12/2012 11:37:43 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.000878	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Toluene	0.00230	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Ethylbenzene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Xylenes, Total	0.00328	0.00158		mg/Kg	1	10/10/2012 3:39:11 PM
Methyl tert-butyl ether (MTBE)	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,2,4-Trimethylbenzene	0.00108	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,3,5-Trimethylbenzene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,2-Dichloroethane (EDC)	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,2-Dibromoethane (EDB)	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Naphthalene	ND	0.00158		mg/Kg	1	10/10/2012 3:39:11 PM
1-Methylnaphthalene	ND	0.00316		mg/Kg	1	10/10/2012 3:39:11 PM
2-Methylnaphthalene	ND	0.00316		mg/Kg	1	10/10/2012 3:39:11 PM
Acetone	0.0950	0.00791		mg/Kg	1	10/10/2012 3:39:11 PM
Bromobenzene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Bromodichloromethane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Bromoform	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Bromomethane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
2-Butanone	0.00862	0.00791		mg/Kg	1	10/10/2012 3:39:11 PM
Carbon tetrachloride	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Chlorobenzene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Chloroethane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (0-0.5')
Collection Date: 10/8/2012 4:05:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Chloromethane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
2-Chlorotoluene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Carbon disulfide	ND	0.00791		mg/Kg	1	10/10/2012 3:39:11 PM
4-Chlorotoluene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
cis-1,2-DCE	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
cis-1,3-Dichloropropene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,2-Dibromo-3-chloropropane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Dibromochloromethane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Dibromomethane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,2-Dichlorobenzene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,3-Dichlorobenzene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,4-Dichlorobenzene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Dichlorodifluoromethane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,1-Dichloroethane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,1-Dichloroethene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,2-Dichloropropane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,3-Dichloropropane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
2,2-Dichloropropane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,1-Dichloropropene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Hexachlorobutadiene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Isopropylbenzene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
4-Isopropyltoluene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Methylene chloride	ND	0.00237		mg/Kg	1	10/10/2012 3:39:11 PM
n-Butylbenzene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
2-Hexanone	ND	0.00791		mg/Kg	1	10/10/2012 3:39:11 PM
n-Propylbenzene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
sec-Butylbenzene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Styrene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
4-Methyl-2-pentanone	ND	0.00791		mg/Kg	1	10/10/2012 3:39:11 PM
tert-Butylbenzene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,1,1,2-Tetrachloroethane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,1,2,2-Tetrachloroethane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Tetrachloroethene (PCE)	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
trans-1,2-DCE	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
trans-1,3-Dichloropropene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,2,3-Trichlorobenzene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,2,4-Trichlorobenzene	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,1,1-Trichloroethane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
1,1,2-Trichloroethane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Trichloroethene (TCE)	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Trichlorofluoromethane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (0-0.5')
Collection Date: 10/8/2012 4:05:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Vinyl chloride	ND	0.000791		mg/Kg	1	10/10/2012 3:39:11 PM
Surr: 1,2-Dichloroethane-d4	96.1	70-130		%REC	1	10/10/2012 3:39:11 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	10/10/2012 3:39:11 PM
Surr: Dibromofluoromethane	105	70-130		%REC	1	10/10/2012 3:39:11 PM
Surr: Toluene-d8	103	70-130		%REC	1	10/10/2012 3:39:11 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (0-0.5') DUP
Collection Date: 10/8/2012 4:05:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	11	10		mg/Kg	1	10/11/2012 12:22:46 PM
Motor Oil Range Organics (MRO)	71	51		mg/Kg	1	10/11/2012 12:22:46 PM
Surr: DNOP	106	77.6-140		%REC	1	10/11/2012 12:22:46 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/12/2012 2:40:10 PM
Surr: BFB	104	84-116		%REC	1	10/12/2012 2:40:10 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 4:49:08 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/16/2012 4:00:28 PM
Arsenic	ND	12		mg/Kg	5	10/16/2012 4:00:28 PM
Barium	180	0.50		mg/Kg	5	10/16/2012 4:00:28 PM
Beryllium	ND	0.75		mg/Kg	5	10/16/2012 4:00:28 PM
Cadmium	ND	0.50		mg/Kg	5	10/16/2012 4:00:28 PM
Chromium	9.6	1.5		mg/Kg	5	10/16/2012 4:00:28 PM
Cobalt	4.4	1.5		mg/Kg	5	10/16/2012 4:00:28 PM
Iron	10000	500		mg/Kg	500	10/16/2012 4:05:17 PM
Lead	7.8	1.2		mg/Kg	5	10/16/2012 4:00:28 PM
Manganese	290	5.0		mg/Kg	50	10/16/2012 4:02:52 PM
Nickel	8.5	2.5		mg/Kg	5	10/16/2012 4:00:28 PM
Selenium	ND	12		mg/Kg	5	10/16/2012 4:00:28 PM
Silver	ND	1.2		mg/Kg	5	10/16/2012 4:00:28 PM
Vanadium	18	12		mg/Kg	5	10/16/2012 4:00:28 PM
Zinc	29	12		mg/Kg	5	10/16/2012 4:00:28 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Acenaphthylene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Aniline	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Anthracene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Azobenzene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/12/2012 1:05:42 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (0-0.5') DUP
Collection Date: 10/8/2012 4:05:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/12/2012 1:05:42 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Carbazole	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/12/2012 1:05:42 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/12/2012 1:05:42 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	10/12/2012 1:05:42 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Chrysene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/12/2012 1:05:42 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	10/12/2012 1:05:42 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Dibenzofuran	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	10/12/2012 1:05:42 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/12/2012 1:05:42 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/12/2012 1:05:42 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/12/2012 1:05:42 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/12/2012 1:05:42 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/12/2012 1:05:42 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/12/2012 1:05:42 PM
Fluoranthene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Fluorene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Hexachloroethane	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Isophorone	ND	2.5		mg/Kg	1	10/12/2012 1:05:42 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/12/2012 1:05:42 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Naphthalene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-24 (0-0.5') DUP
Project: SWMU NO.1
Collection Date: 10/8/2012 4:05:00 PM
Lab ID: 1210521-002 **Matrix:** SOIL **Received Date:** 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	10/12/2012 1:05:42 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/12/2012 1:05:42 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	10/12/2012 1:05:42 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/12/2012 1:05:42 PM
Phenanthrene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Phenol	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Pyrene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Pyridine	ND	2.5		mg/Kg	1	10/12/2012 1:05:42 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/12/2012 1:05:42 PM
Surr: 2,4,6-Tribromophenol	86.1	21.3-145		%REC	1	10/12/2012 1:05:42 PM
Surr: 2-Fluorobiphenyl	74.9	20-131		%REC	1	10/12/2012 1:05:42 PM
Surr: 2-Fluorophenol	86.0	11.9-130		%REC	1	10/12/2012 1:05:42 PM
Surr: 4-Terphenyl-d14	77.4	25.1-149		%REC	1	10/12/2012 1:05:42 PM
Surr: Nitrobenzene-d5	81.4	25.6-137		%REC	1	10/12/2012 1:05:42 PM
Surr: Phenol-d5	84.0	20.3-132		%REC	1	10/12/2012 1:05:42 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.000940	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Toluene	0.00290	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Ethylbenzene	0.000989	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Xylenes, Total	0.00436	0.00165		mg/Kg	1	10/10/2012 4:10:01 PM
Methyl tert-butyl ether (MTBE)	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,2,4-Trimethylbenzene	0.00156	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,3,5-Trimethylbenzene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,2-Dichloroethane (EDC)	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,2-Dibromoethane (EDB)	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Naphthalene	ND	0.00165		mg/Kg	1	10/10/2012 4:10:01 PM
1-Methylnaphthalene	ND	0.00330		mg/Kg	1	10/10/2012 4:10:01 PM
2-Methylnaphthalene	ND	0.00330		mg/Kg	1	10/10/2012 4:10:01 PM
Acetone	0.0811	0.00824		mg/Kg	1	10/10/2012 4:10:01 PM
Bromobenzene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Bromodichloromethane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Bromoform	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Bromomethane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
2-Butanone	ND	0.00824		mg/Kg	1	10/10/2012 4:10:01 PM
Carbon tetrachloride	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Chlorobenzene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Chloroethane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (0-0.5') DUP
Collection Date: 10/8/2012 4:05:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Chloromethane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
2-Chlorotoluene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Carbon disulfide	ND	0.00824		mg/Kg	1	10/10/2012 4:10:01 PM
4-Chlorotoluene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
cis-1,2-DCE	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
cis-1,3-Dichloropropene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,2-Dibromo-3-chloropropane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Dibromochloromethane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Dibromomethane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,2-Dichlorobenzene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,3-Dichlorobenzene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,4-Dichlorobenzene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Dichlorodifluoromethane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,1-Dichloroethane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,1-Dichloroethene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,2-Dichloropropane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,3-Dichloropropane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
2,2-Dichloropropane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,1-Dichloropropene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Hexachlorobutadiene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Isopropylbenzene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
4-Isopropyltoluene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Methylene chloride	ND	0.00247		mg/Kg	1	10/10/2012 4:10:01 PM
n-Butylbenzene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
2-Hexanone	ND	0.00824		mg/Kg	1	10/10/2012 4:10:01 PM
n-Propylbenzene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
sec-Butylbenzene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Styrene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
4-Methyl-2-pentanone	ND	0.00824		mg/Kg	1	10/10/2012 4:10:01 PM
tert-Butylbenzene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,1,1,2-Tetrachloroethane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,1,2,2-Tetrachloroethane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Tetrachloroethene (PCE)	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
trans-1,2-DCE	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
trans-1,3-Dichloropropene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,2,3-Trichlorobenzene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,2,4-Trichlorobenzene	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,1,1-Trichloroethane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
1,1,2-Trichloroethane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Trichloroethene (TCE)	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Trichlorofluoromethane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (0-0.5') DUP
Collection Date: 10/8/2012 4:05:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Vinyl chloride	ND	0.000824		mg/Kg	1	10/10/2012 4:10:01 PM
Surr: 1,2-Dichloroethane-d4	87.8	70-130		%REC	1	10/10/2012 4:10:01 PM
Surr: 4-Bromofluorobenzene	99.5	70-130		%REC	1	10/10/2012 4:10:01 PM
Surr: Dibromofluoromethane	89.0	70-130		%REC	1	10/10/2012 4:10:01 PM
Surr: Toluene-d8	93.3	70-130		%REC	1	10/10/2012 4:10:01 PM

Qualifiers:

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

Analytical Report
Lab Order **1210521**
Date Reported: **11/12/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (1.5-2')
Collection Date: 10/8/2012 4:15:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/11/2012 8:41:57 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/11/2012 8:41:57 AM
Surr: DNOP	93.7	77.6-140		%REC	1	10/11/2012 8:41:57 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/12/2012 3:09:00 PM
Surr: BFB	104	84-116		%REC	1	10/12/2012 3:09:00 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 4:50:54 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/16/2012 4:23:04 PM
Arsenic	ND	12		mg/Kg	5	10/16/2012 4:23:04 PM
Barium	330	5.0		mg/Kg	50	10/16/2012 4:25:31 PM
Beryllium	0.86	0.75		mg/Kg	5	10/16/2012 4:23:04 PM
Cadmium	ND	0.50		mg/Kg	5	10/16/2012 4:23:04 PM
Chromium	7.4	1.5		mg/Kg	5	10/16/2012 4:23:04 PM
Cobalt	4.4	1.5		mg/Kg	5	10/16/2012 4:23:04 PM
Iron	12000	500		mg/Kg	500	10/16/2012 4:27:56 PM
Lead	4.4	1.2		mg/Kg	5	10/16/2012 4:23:04 PM
Manganese	410	5.0		mg/Kg	50	10/16/2012 4:25:31 PM
Nickel	7.0	2.5		mg/Kg	5	10/16/2012 4:23:04 PM
Selenium	ND	12		mg/Kg	5	10/16/2012 4:23:04 PM
Silver	ND	1.2		mg/Kg	5	10/16/2012 4:23:04 PM
Vanadium	14	12		mg/Kg	5	10/16/2012 4:23:04 PM
Zinc	13	12		mg/Kg	5	10/16/2012 4:23:04 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Aniline	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Anthracene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Azobenzene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/12/2012 7:42:22 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (1.5-2')
Collection Date: 10/8/2012 4:15:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/12/2012 7:42:22 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Carbazole	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 7:42:22 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/12/2012 7:42:22 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/12/2012 7:42:22 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Chrysene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/12/2012 7:42:22 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/12/2012 7:42:22 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/12/2012 7:42:22 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 7:42:22 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/12/2012 7:42:22 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 7:42:22 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/12/2012 7:42:22 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 7:42:22 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 7:42:22 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Fluorene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Isophorone	ND	0.50		mg/Kg	1	10/12/2012 7:42:22 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/12/2012 7:42:22 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Naphthalene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (1.5-2')
Collection Date: 10/8/2012 4:15:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 7:42:22 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/12/2012 7:42:22 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/12/2012 7:42:22 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/12/2012 7:42:22 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Phenol	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Pyrene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Pyridine	ND	0.50		mg/Kg	1	10/12/2012 7:42:22 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 7:42:22 AM
Surr: 2,4,6-Tribromophenol	79.5	21.3-145		%REC	1	10/12/2012 7:42:22 AM
Surr: 2-Fluorobiphenyl	72.2	20-131		%REC	1	10/12/2012 7:42:22 AM
Surr: 2-Fluorophenol	70.7	11.9-130		%REC	1	10/12/2012 7:42:22 AM
Surr: 4-Terphenyl-d14	71.5	25.1-149		%REC	1	10/12/2012 7:42:22 AM
Surr: Nitrobenzene-d5	71.6	25.6-137		%REC	1	10/12/2012 7:42:22 AM
Surr: Phenol-d5	78.4	20.3-132		%REC	1	10/12/2012 7:42:22 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00215	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Toluene	0.00201	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Ethylbenzene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Xylenes, Total	ND	0.00146		mg/Kg	1	10/10/2012 4:40:52 PM
Methyl tert-butyl ether (MTBE)	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,2,4-Trimethylbenzene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,3,5-Trimethylbenzene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,2-Dichloroethane (EDC)	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,2-Dibromoethane (EDB)	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Naphthalene	ND	0.00146		mg/Kg	1	10/10/2012 4:40:52 PM
1-Methylnaphthalene	ND	0.00293		mg/Kg	1	10/10/2012 4:40:52 PM
2-Methylnaphthalene	ND	0.00293		mg/Kg	1	10/10/2012 4:40:52 PM
Acetone	0.0549	0.00732		mg/Kg	1	10/10/2012 4:40:52 PM
Bromobenzene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Bromodichloromethane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Bromoform	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Bromomethane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
2-Butanone	0.00925	0.00732		mg/Kg	1	10/10/2012 4:40:52 PM
Carbon tetrachloride	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Chlorobenzene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Chloroethane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (1.5-2')
Collection Date: 10/8/2012 4:15:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Chloromethane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
2-Chlorotoluene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Carbon disulfide	ND	0.00732		mg/Kg	1	10/10/2012 4:40:52 PM
4-Chlorotoluene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
cis-1,2-DCE	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
cis-1,3-Dichloropropene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,2-Dibromo-3-chloropropane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Dibromochloromethane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Dibromomethane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,2-Dichlorobenzene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,3-Dichlorobenzene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,4-Dichlorobenzene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Dichlorodifluoromethane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,1-Dichloroethane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,1-Dichloroethene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,2-Dichloropropane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,3-Dichloropropane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
2,2-Dichloropropane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,1-Dichloropropene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Hexachlorobutadiene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Isopropylbenzene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
4-Isopropyltoluene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Methylene chloride	ND	0.00220		mg/Kg	1	10/10/2012 4:40:52 PM
n-Butylbenzene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
2-Hexanone	ND	0.00732		mg/Kg	1	10/10/2012 4:40:52 PM
n-Propylbenzene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
sec-Butylbenzene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Styrene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
4-Methyl-2-pentanone	ND	0.00732		mg/Kg	1	10/10/2012 4:40:52 PM
tert-Butylbenzene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,1,1,2-Tetrachloroethane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,1,2,2-Tetrachloroethane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Tetrachloroethene (PCE)	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
trans-1,2-DCE	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
trans-1,3-Dichloropropene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,2,3-Trichlorobenzene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,2,4-Trichlorobenzene	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,1,1-Trichloroethane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
1,1,2-Trichloroethane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Trichloroethene (TCE)	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Trichlorofluoromethane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (1.5-2')
Collection Date: 10/8/2012 4:15:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Vinyl chloride	ND	0.000732		mg/Kg	1	10/10/2012 4:40:52 PM
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	1	10/10/2012 4:40:52 PM
Surr: 4-Bromofluorobenzene	89.0	70-130		%REC	1	10/10/2012 4:40:52 PM
Surr: Dibromofluoromethane	102	70-130		%REC	1	10/10/2012 4:40:52 PM
Surr: Toluene-d8	97.2	70-130		%REC	1	10/10/2012 4:40:52 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (10.5-11.5')
Collection Date: 10/8/2012 4:30:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/11/2012 9:03:31 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/11/2012 9:03:31 AM
Surr: DNOP	97.5	77.6-140		%REC	1	10/11/2012 9:03:31 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/12/2012 3:37:47 PM
Surr: BFB	106	84-116		%REC	1	10/12/2012 3:37:47 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 4:52:41 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/16/2012 4:30:35 PM
Arsenic	ND	12		mg/Kg	5	10/16/2012 4:30:35 PM
Barium	360	5.0		mg/Kg	50	10/16/2012 4:33:01 PM
Beryllium	ND	0.75		mg/Kg	5	10/16/2012 4:30:35 PM
Cadmium	ND	0.50		mg/Kg	5	10/16/2012 4:30:35 PM
Chromium	4.9	1.5		mg/Kg	5	10/16/2012 4:30:35 PM
Cobalt	3.9	1.5		mg/Kg	5	10/16/2012 4:30:35 PM
Iron	10000	500		mg/Kg	500	10/16/2012 4:35:27 PM
Lead	5.2	1.2		mg/Kg	5	10/16/2012 4:30:35 PM
Manganese	710	5.0		mg/Kg	50	10/16/2012 4:33:01 PM
Nickel	5.6	2.5		mg/Kg	5	10/16/2012 4:30:35 PM
Selenium	ND	12		mg/Kg	5	10/16/2012 4:30:35 PM
Silver	ND	1.2		mg/Kg	5	10/16/2012 4:30:35 PM
Vanadium	13	12		mg/Kg	5	10/16/2012 4:30:35 PM
Zinc	ND	12		mg/Kg	5	10/16/2012 4:30:35 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Aniline	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Anthracene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Azobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/12/2012 8:11:38 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (10.5-11.5')
Collection Date: 10/8/2012 4:30:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/12/2012 8:11:38 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Carbazole	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 8:11:38 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/12/2012 8:11:38 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/12/2012 8:11:38 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Chrysene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/12/2012 8:11:38 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/12/2012 8:11:38 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/12/2012 8:11:38 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 8:11:38 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/12/2012 8:11:38 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 8:11:38 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/12/2012 8:11:38 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 8:11:38 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 8:11:38 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Fluorene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Isophorone	ND	0.50		mg/Kg	1	10/12/2012 8:11:38 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/12/2012 8:11:38 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Naphthalene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (10.5-11.5')
Collection Date: 10/8/2012 4:30:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 8:11:38 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/12/2012 8:11:38 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/12/2012 8:11:38 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/12/2012 8:11:38 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Phenol	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Pyrene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Pyridine	ND	0.50		mg/Kg	1	10/12/2012 8:11:38 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 8:11:38 AM
Surr: 2,4,6-Tribromophenol	78.0	21.3-145		%REC	1	10/12/2012 8:11:38 AM
Surr: 2-Fluorobiphenyl	72.7	20-131		%REC	1	10/12/2012 8:11:38 AM
Surr: 2-Fluorophenol	70.9	11.9-130		%REC	1	10/12/2012 8:11:38 AM
Surr: 4-Terphenyl-d14	71.2	25.1-149		%REC	1	10/12/2012 8:11:38 AM
Surr: Nitrobenzene-d5	71.3	25.6-137		%REC	1	10/12/2012 8:11:38 AM
Surr: Phenol-d5	78.9	20.3-132		%REC	1	10/12/2012 8:11:38 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00208	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Toluene	0.00112	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Ethylbenzene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Xylenes, Total	ND	0.00147		mg/Kg	1	10/10/2012 5:11:46 PM
Methyl tert-butyl ether (MTBE)	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,2,4-Trimethylbenzene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,3,5-Trimethylbenzene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,2-Dichloroethane (EDC)	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,2-Dibromoethane (EDB)	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Naphthalene	ND	0.00147		mg/Kg	1	10/10/2012 5:11:46 PM
1-Methylnaphthalene	ND	0.00294		mg/Kg	1	10/10/2012 5:11:46 PM
2-Methylnaphthalene	ND	0.00294		mg/Kg	1	10/10/2012 5:11:46 PM
Acetone	0.0361	0.00735		mg/Kg	1	10/10/2012 5:11:46 PM
Bromobenzene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Bromodichloromethane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Bromoform	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Bromomethane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
2-Butanone	ND	0.00735		mg/Kg	1	10/10/2012 5:11:46 PM
Carbon tetrachloride	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Chlorobenzene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Chloroethane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (10.5-11.5')
Collection Date: 10/8/2012 4:30:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Chloromethane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
2-Chlorotoluene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Carbon disulfide	ND	0.00735		mg/Kg	1	10/10/2012 5:11:46 PM
4-Chlorotoluene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
cis-1,2-DCE	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
cis-1,3-Dichloropropene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,2-Dibromo-3-chloropropane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Dibromochloromethane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Dibromomethane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,2-Dichlorobenzene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,3-Dichlorobenzene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,4-Dichlorobenzene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Dichlorodifluoromethane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,1-Dichloroethane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,1-Dichloroethene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,2-Dichloropropane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,3-Dichloropropane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
2,2-Dichloropropane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,1-Dichloropropene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Hexachlorobutadiene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Isopropylbenzene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
4-Isopropyltoluene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Methylene chloride	ND	0.00221		mg/Kg	1	10/10/2012 5:11:46 PM
n-Butylbenzene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
2-Hexanone	ND	0.00735		mg/Kg	1	10/10/2012 5:11:46 PM
n-Propylbenzene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
sec-Butylbenzene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Styrene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
4-Methyl-2-pentanone	ND	0.00735		mg/Kg	1	10/10/2012 5:11:46 PM
tert-Butylbenzene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,1,1,2-Tetrachloroethane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,1,2,2-Tetrachloroethane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Tetrachloroethene (PCE)	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
trans-1,2-DCE	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
trans-1,3-Dichloropropene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,2,3-Trichlorobenzene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,2,4-Trichlorobenzene	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,1,1-Trichloroethane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
1,1,2-Trichloroethane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Trichloroethene (TCE)	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Trichlorofluoromethane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (10.5-11.5')
Collection Date: 10/8/2012 4:30:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Vinyl chloride	ND	0.000735		mg/Kg	1	10/10/2012 5:11:46 PM
Surr: 1,2-Dichloroethane-d4	93.8	70-130		%REC	1	10/10/2012 5:11:46 PM
Surr: 4-Bromofluorobenzene	97.7	70-130		%REC	1	10/10/2012 5:11:46 PM
Surr: Dibromofluoromethane	103	70-130		%REC	1	10/10/2012 5:11:46 PM
Surr: Toluene-d8	93.4	70-130		%REC	1	10/10/2012 5:11:46 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (16-18')
Collection Date: 10/8/2012 4:40:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/11/2012 9:25:09 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/11/2012 9:25:09 AM
Surr: DNOP	96.6	77.6-140		%REC	1	10/11/2012 9:25:09 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/12/2012 4:06:37 PM
Surr: BFB	109	84-116		%REC	1	10/12/2012 4:06:37 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 4:54:29 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/16/2012 4:38:05 PM
Arsenic	ND	12		mg/Kg	5	10/16/2012 4:38:05 PM
Barium	480	5.0		mg/Kg	50	10/16/2012 4:40:30 PM
Beryllium	ND	0.75		mg/Kg	5	10/16/2012 4:38:05 PM
Cadmium	ND	0.50		mg/Kg	5	10/16/2012 4:38:05 PM
Chromium	5.9	1.5		mg/Kg	5	10/16/2012 4:38:05 PM
Cobalt	3.0	1.5		mg/Kg	5	10/16/2012 4:38:05 PM
Iron	9500	500		mg/Kg	500	10/16/2012 4:44:35 PM
Lead	4.9	1.2		mg/Kg	5	10/16/2012 4:38:05 PM
Manganese	790	5.0		mg/Kg	50	10/16/2012 4:40:30 PM
Nickel	4.7	2.5		mg/Kg	5	10/16/2012 4:38:05 PM
Selenium	ND	12		mg/Kg	5	10/16/2012 4:38:05 PM
Silver	ND	1.2		mg/Kg	5	10/16/2012 4:38:05 PM
Vanadium	16	12		mg/Kg	5	10/16/2012 4:38:05 PM
Zinc	ND	12		mg/Kg	5	10/16/2012 4:38:05 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Aniline	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Anthracene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Azobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/12/2012 8:40:52 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-24 (16-18')
Project: SWMU NO.1
Collection Date: 10/8/2012 4:40:00 PM
Lab ID: 1210521-005 **Matrix:** SOIL **Received Date:** 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/12/2012 8:40:52 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Carbazole	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 8:40:52 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/12/2012 8:40:52 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/12/2012 8:40:52 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Chrysene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/12/2012 8:40:52 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/12/2012 8:40:52 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/12/2012 8:40:52 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 8:40:52 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/12/2012 8:40:52 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 8:40:52 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/12/2012 8:40:52 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 8:40:52 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 8:40:52 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Fluorene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Isophorone	ND	0.50		mg/Kg	1	10/12/2012 8:40:52 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/12/2012 8:40:52 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Naphthalene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (16-18')
Collection Date: 10/8/2012 4:40:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 8:40:52 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/12/2012 8:40:52 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/12/2012 8:40:52 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/12/2012 8:40:52 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Phenol	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Pyrene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Pyridine	ND	0.50		mg/Kg	1	10/12/2012 8:40:52 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 8:40:52 AM
Surr: 2,4,6-Tribromophenol	74.0	21.3-145		%REC	1	10/12/2012 8:40:52 AM
Surr: 2-Fluorobiphenyl	61.4	20-131		%REC	1	10/12/2012 8:40:52 AM
Surr: 2-Fluorophenol	65.9	11.9-130		%REC	1	10/12/2012 8:40:52 AM
Surr: 4-Terphenyl-d14	60.4	25.1-149		%REC	1	10/12/2012 8:40:52 AM
Surr: Nitrobenzene-d5	68.9	25.6-137		%REC	1	10/12/2012 8:40:52 AM
Surr: Phenol-d5	71.5	20.3-132		%REC	1	10/12/2012 8:40:52 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Toluene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Ethylbenzene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Xylenes, Total	ND	0.00219		mg/Kg	1	10/11/2012 4:10:57 PM
Methyl tert-butyl ether (MTBE)	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,2,4-Trimethylbenzene	0.00202	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,3,5-Trimethylbenzene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,2-Dichloroethane (EDC)	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,2-Dibromoethane (EDB)	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Naphthalene	ND	0.00219		mg/Kg	1	10/11/2012 4:10:57 PM
1-Methylnaphthalene	ND	0.00437		mg/Kg	1	10/11/2012 4:10:57 PM
2-Methylnaphthalene	ND	0.00437		mg/Kg	1	10/11/2012 4:10:57 PM
Acetone	0.0834	0.0109		mg/Kg	1	10/11/2012 4:10:57 PM
Bromobenzene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Bromodichloromethane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Bromoform	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Bromomethane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
2-Butanone	0.0200	0.0109		mg/Kg	1	10/11/2012 4:10:57 PM
Carbon tetrachloride	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Chlorobenzene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Chloroethane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-24 (16-18')
Project: SWMU NO.1
Collection Date: 10/8/2012 4:40:00 PM
Lab ID: 1210521-005 **Matrix:** SOIL **Received Date:** 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Chloromethane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
2-Chlorotoluene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Carbon disulfide	ND	0.0109		mg/Kg	1	10/11/2012 4:10:57 PM
4-Chlorotoluene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
cis-1,2-DCE	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
cis-1,3-Dichloropropene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,2-Dibromo-3-chloropropane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Dibromochloromethane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Dibromomethane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,2-Dichlorobenzene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,3-Dichlorobenzene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,4-Dichlorobenzene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Dichlorodifluoromethane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,1-Dichloroethane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,1-Dichloroethene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,2-Dichloropropane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,3-Dichloropropane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
2,2-Dichloropropane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,1-Dichloropropene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Hexachlorobutadiene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Isopropylbenzene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
4-Isopropyltoluene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Methylene chloride	ND	0.00328		mg/Kg	1	10/11/2012 4:10:57 PM
n-Butylbenzene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
2-Hexanone	ND	0.0109		mg/Kg	1	10/11/2012 4:10:57 PM
n-Propylbenzene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
sec-Butylbenzene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Styrene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
4-Methyl-2-pentanone	ND	0.0109		mg/Kg	1	10/11/2012 4:10:57 PM
tert-Butylbenzene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,1,1,2-Tetrachloroethane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,1,2,2-Tetrachloroethane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Tetrachloroethene (PCE)	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
trans-1,2-DCE	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
trans-1,3-Dichloropropene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,2,3-Trichlorobenzene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,2,4-Trichlorobenzene	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,1,1-Trichloroethane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
1,1,2-Trichloroethane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Trichloroethene (TCE)	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Trichlorofluoromethane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (16-18')
Collection Date: 10/8/2012 4:40:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Vinyl chloride	ND	0.00109		mg/Kg	1	10/11/2012 4:10:57 PM
Surr: 1,2-Dichloroethane-d4	93.3	70-130		%REC	1	10/11/2012 4:10:57 PM
Surr: 4-Bromofluorobenzene	92.9	70-130		%REC	1	10/11/2012 4:10:57 PM
Surr: Dibromofluoromethane	94.1	70-130		%REC	1	10/11/2012 4:10:57 PM
Surr: Toluene-d8	110	70-130		%REC	1	10/11/2012 4:10:57 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-24 (24-26')
Project: SWMU NO.1
Collection Date: 10/8/2012 4:55:00 PM
Lab ID: 1210521-006 **Matrix:** SOIL **Received Date:** 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/11/2012 9:46:46 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/11/2012 9:46:46 AM
Surr: DNOP	94.6	77.6-140		%REC	1	10/11/2012 9:46:46 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/12/2012 4:35:22 PM
Surr: BFB	135	84-116	S	%REC	1	10/12/2012 4:35:22 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 4:56:16 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/16/2012 4:47:26 PM
Arsenic	ND	12		mg/Kg	5	10/16/2012 4:47:26 PM
Barium	160	0.50		mg/Kg	5	10/16/2012 4:47:26 PM
Beryllium	0.89	0.75		mg/Kg	5	10/16/2012 4:47:26 PM
Cadmium	ND	0.50		mg/Kg	5	10/16/2012 4:47:26 PM
Chromium	9.9	1.5		mg/Kg	5	10/16/2012 4:47:26 PM
Cobalt	4.8	1.5		mg/Kg	5	10/16/2012 4:47:26 PM
Iron	13000	500		mg/Kg	500	10/16/2012 5:00:50 PM
Lead	3.4	1.2		mg/Kg	5	10/16/2012 4:47:26 PM
Manganese	640	5.0		mg/Kg	50	10/16/2012 4:58:26 PM
Nickel	7.7	2.5		mg/Kg	5	10/16/2012 4:47:26 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 9:41:06 AM
Silver	ND	1.2		mg/Kg	5	10/16/2012 4:47:26 PM
Vanadium	23	12		mg/Kg	5	10/16/2012 4:47:26 PM
Zinc	17	12		mg/Kg	5	10/16/2012 4:47:26 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Aniline	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Anthracene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Azobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/12/2012 9:10:07 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (24-26')
Collection Date: 10/8/2012 4:55:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/12/2012 9:10:07 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Carbazole	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 9:10:07 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/12/2012 9:10:07 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/12/2012 9:10:07 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Chrysene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/12/2012 9:10:07 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/12/2012 9:10:07 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/12/2012 9:10:07 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 9:10:07 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/12/2012 9:10:07 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 9:10:07 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/12/2012 9:10:07 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 9:10:07 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 9:10:07 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Fluorene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Isophorone	ND	0.50		mg/Kg	1	10/12/2012 9:10:07 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/12/2012 9:10:07 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Naphthalene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-24 (24-26')
Project: SWMU NO.1
Collection Date: 10/8/2012 4:55:00 PM
Lab ID: 1210521-006 **Matrix:** SOIL **Received Date:** 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 9:10:07 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/12/2012 9:10:07 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/12/2012 9:10:07 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/12/2012 9:10:07 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Phenol	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Pyrene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Pyridine	ND	0.50		mg/Kg	1	10/12/2012 9:10:07 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 9:10:07 AM
Surr: 2,4,6-Tribromophenol	81.7	21.3-145		%REC	1	10/12/2012 9:10:07 AM
Surr: 2-Fluorobiphenyl	71.6	20-131		%REC	1	10/12/2012 9:10:07 AM
Surr: 2-Fluorophenol	73.6	11.9-130		%REC	1	10/12/2012 9:10:07 AM
Surr: 4-Terphenyl-d14	70.0	25.1-149		%REC	1	10/12/2012 9:10:07 AM
Surr: Nitrobenzene-d5	56.8	25.6-137		%REC	1	10/12/2012 9:10:07 AM
Surr: Phenol-d5	84.7	20.3-132		%REC	1	10/12/2012 9:10:07 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00396	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Toluene	0.00493	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Ethylbenzene	0.00733	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Xylenes, Total	0.0289	0.00291		mg/Kg	1	10/12/2012 11:13:07 AM
Methyl tert-butyl ether (MTBE)	0.00571	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,2,4-Trimethylbenzene	0.0306	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,3,5-Trimethylbenzene	0.00599	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,2-Dichloroethane (EDC)	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,2-Dibromoethane (EDB)	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Naphthalene	0.0727	0.00291		mg/Kg	1	10/12/2012 11:13:07 AM
1-Methylnaphthalene	0.0456	0.00582		mg/Kg	1	10/12/2012 11:13:07 AM
2-Methylnaphthalene	0.0659	0.00582		mg/Kg	1	10/12/2012 11:13:07 AM
Acetone	0.0758	0.0145		mg/Kg	1	10/12/2012 11:13:07 AM
Bromobenzene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Bromodichloromethane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Bromoform	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Bromomethane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
2-Butanone	0.0179	0.0145		mg/Kg	1	10/12/2012 11:13:07 AM
Carbon tetrachloride	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Chlorobenzene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Chloroethane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (24-26')
Collection Date: 10/8/2012 4:55:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Chloromethane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
2-Chlorotoluene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Carbon disulfide	ND	0.0145		mg/Kg	1	10/12/2012 11:13:07 AM
4-Chlorotoluene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
cis-1,2-DCE	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
cis-1,3-Dichloropropene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,2-Dibromo-3-chloropropane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Dibromochloromethane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Dibromomethane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,2-Dichlorobenzene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,3-Dichlorobenzene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,4-Dichlorobenzene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Dichlorodifluoromethane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,1-Dichloroethane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,1-Dichloroethene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,2-Dichloropropane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,3-Dichloropropane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
2,2-Dichloropropane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,1-Dichloropropene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Hexachlorobutadiene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Isopropylbenzene	0.00161	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
4-Isopropyltoluene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Methylene chloride	ND	0.00436		mg/Kg	1	10/12/2012 11:13:07 AM
n-Butylbenzene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
2-Hexanone	ND	0.0145		mg/Kg	1	10/12/2012 11:13:07 AM
n-Propylbenzene	0.00318	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
sec-Butylbenzene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Styrene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
4-Methyl-2-pentanone	ND	0.0145		mg/Kg	1	10/12/2012 11:13:07 AM
tert-Butylbenzene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,1,1,2-Tetrachloroethane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,1,2,2-Tetrachloroethane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Tetrachloroethene (PCE)	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
trans-1,2-DCE	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
trans-1,3-Dichloropropene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,2,3-Trichlorobenzene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,2,4-Trichlorobenzene	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,1,1-Trichloroethane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
1,1,2-Trichloroethane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Trichloroethene (TCE)	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Trichlorofluoromethane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-24 (24-26')
Project: SWMU NO.1
Collection Date: 10/8/2012 4:55:00 PM
Lab ID: 1210521-006 **Matrix:** SOIL **Received Date:** 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Vinyl chloride	ND	0.00145		mg/Kg	1	10/12/2012 11:13:07 AM
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	10/12/2012 11:13:07 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	10/12/2012 11:13:07 AM
Surr: Dibromofluoromethane	94.5	70-130		%REC	1	10/12/2012 11:13:07 AM
Surr: Toluene-d8	117	70-130		%REC	1	10/12/2012 11:13:07 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-24 (32-34')
Project: SWMU NO.1
Collection Date: 10/8/2012 5:05:00 PM
Lab ID: 1210521-007 **Matrix:** SOIL **Received Date:** 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/11/2012 10:08:19 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/11/2012 10:08:19 AM
Surr: DNOP	101	77.6-140		%REC	1	10/11/2012 10:08:19 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/12/2012 5:04:07 PM
Surr: BFB	107	84-116		%REC	1	10/12/2012 5:04:07 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 4:58:04 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/16/2012 5:03:26 PM
Arsenic	ND	12		mg/Kg	5	10/16/2012 5:03:26 PM
Barium	220	0.50		mg/Kg	5	10/16/2012 5:03:26 PM
Beryllium	ND	0.75		mg/Kg	5	10/16/2012 5:03:26 PM
Cadmium	ND	0.50		mg/Kg	5	10/16/2012 5:03:26 PM
Chromium	8.1	1.5		mg/Kg	5	10/16/2012 5:03:26 PM
Cobalt	3.9	1.5		mg/Kg	5	10/16/2012 5:03:26 PM
Iron	24000	500		mg/Kg	500	10/16/2012 5:08:16 PM
Lead	8.6	1.2		mg/Kg	5	10/16/2012 5:03:26 PM
Manganese	730	5.0		mg/Kg	50	10/16/2012 5:05:52 PM
Nickel	5.0	2.5		mg/Kg	5	10/16/2012 5:03:26 PM
Selenium	ND	12		mg/Kg	5	10/23/2012 6:35:11 PM
Silver	ND	1.2		mg/Kg	5	10/16/2012 5:03:26 PM
Vanadium	53	12		mg/Kg	5	10/16/2012 5:03:26 PM
Zinc	ND	12		mg/Kg	5	10/16/2012 5:03:26 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Aniline	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Anthracene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Azobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Benzoic acid	ND	0.51		mg/Kg	1	10/12/2012 9:39:23 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210521-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-24 (32-34')
Collection Date: 10/8/2012 5:05:00 PM
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.51		mg/Kg	1	10/12/2012 9:39:23 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Carbazole	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
4-Chloro-3-methylphenol	ND	0.51		mg/Kg	1	10/12/2012 9:39:23 AM
4-Chloroaniline	ND	0.51		mg/Kg	1	10/12/2012 9:39:23 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/12/2012 9:39:23 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Chrysene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Di-n-butyl phthalate	ND	0.51		mg/Kg	1	10/12/2012 9:39:23 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/12/2012 9:39:23 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/12/2012 9:39:23 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 9:39:23 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/12/2012 9:39:23 AM
4,6-Dinitro-2-methylphenol	ND	0.51		mg/Kg	1	10/12/2012 9:39:23 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/12/2012 9:39:23 AM
2,4-Dinitrotoluene	ND	0.51		mg/Kg	1	10/12/2012 9:39:23 AM
2,6-Dinitrotoluene	ND	0.51		mg/Kg	1	10/12/2012 9:39:23 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Fluorene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Isophorone	ND	0.51		mg/Kg	1	10/12/2012 9:39:23 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
2-Methylphenol	ND	0.51		mg/Kg	1	10/12/2012 9:39:23 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Naphthalene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-24 (32-34')
Project: SWMU NO.1
Collection Date: 10/8/2012 5:05:00 PM
Lab ID: 1210521-007 **Matrix:** SOIL **Received Date:** 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 9:39:23 AM
Nitrobenzene	ND	0.51		mg/Kg	1	10/12/2012 9:39:23 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/12/2012 9:39:23 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/12/2012 9:39:23 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Phenol	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Pyrene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Pyridine	ND	0.51		mg/Kg	1	10/12/2012 9:39:23 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 9:39:23 AM
Surr: 2,4,6-Tribromophenol	74.2	21.3-145		%REC	1	10/12/2012 9:39:23 AM
Surr: 2-Fluorobiphenyl	65.7	20-131		%REC	1	10/12/2012 9:39:23 AM
Surr: 2-Fluorophenol	64.9	11.9-130		%REC	1	10/12/2012 9:39:23 AM
Surr: 4-Terphenyl-d14	61.6	25.1-149		%REC	1	10/12/2012 9:39:23 AM
Surr: Nitrobenzene-d5	66.0	25.6-137		%REC	1	10/12/2012 9:39:23 AM
Surr: Phenol-d5	75.1	20.3-132		%REC	1	10/12/2012 9:39:23 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00152	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Toluene	0.00137	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Ethylbenzene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Xylenes, Total	ND	0.00209		mg/Kg	1	10/12/2012 12:45:24 PM
Methyl tert-butyl ether (MTBE)	0.00166	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,2,4-Trimethylbenzene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,3,5-Trimethylbenzene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,2-Dichloroethane (EDC)	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,2-Dibromoethane (EDB)	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Naphthalene	ND	0.00209		mg/Kg	1	10/12/2012 12:45:24 PM
1-Methylnaphthalene	ND	0.00417		mg/Kg	1	10/12/2012 12:45:24 PM
2-Methylnaphthalene	ND	0.00417		mg/Kg	1	10/12/2012 12:45:24 PM
Acetone	0.0327	0.0104		mg/Kg	1	10/12/2012 12:45:24 PM
Bromobenzene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Bromodichloromethane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Bromoform	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Bromomethane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
2-Butanone	ND	0.0104		mg/Kg	1	10/12/2012 12:45:24 PM
Carbon tetrachloride	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Chlorobenzene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Chloroethane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-24 (32-34')
Project: SWMU NO.1
Collection Date: 10/8/2012 5:05:00 PM
Lab ID: 1210521-007 **Matrix:** SOIL **Received Date:** 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Chloromethane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
2-Chlorotoluene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Carbon disulfide	ND	0.0104		mg/Kg	1	10/12/2012 12:45:24 PM
4-Chlorotoluene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
cis-1,2-DCE	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
cis-1,3-Dichloropropene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,2-Dibromo-3-chloropropane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Dibromochloromethane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Dibromomethane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,2-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,3-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,4-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Dichlorodifluoromethane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,1-Dichloroethane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,1-Dichloroethene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,2-Dichloropropane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,3-Dichloropropane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
2,2-Dichloropropane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,1-Dichloropropene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Hexachlorobutadiene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Isopropylbenzene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
4-Isopropyltoluene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Methylene chloride	ND	0.00313		mg/Kg	1	10/12/2012 12:45:24 PM
n-Butylbenzene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
2-Hexanone	ND	0.0104		mg/Kg	1	10/12/2012 12:45:24 PM
n-Propylbenzene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
sec-Butylbenzene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Styrene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
4-Methyl-2-pentanone	ND	0.0104		mg/Kg	1	10/12/2012 12:45:24 PM
tert-Butylbenzene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,1,1,2-Tetrachloroethane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,1,2,2-Tetrachloroethane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Tetrachloroethene (PCE)	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
trans-1,2-DCE	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
trans-1,3-Dichloropropene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,2,3-Trichlorobenzene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,2,4-Trichlorobenzene	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,1,1-Trichloroethane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
1,1,2-Trichloroethane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Trichloroethene (TCE)	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Trichlorofluoromethane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-24 (32-34')
Project: SWMU NO.1
Collection Date: 10/8/2012 5:05:00 PM
Lab ID: 1210521-007 **Matrix:** SOIL **Received Date:** 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Vinyl chloride	ND	0.00104		mg/Kg	1	10/12/2012 12:45:24 PM
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	10/12/2012 12:45:24 PM
Surr: 4-Bromofluorobenzene	91.5	70-130		%REC	1	10/12/2012 12:45:24 PM
Surr: Dibromofluoromethane	100	70-130		%REC	1	10/12/2012 12:45:24 PM
Surr: Toluene-d8	94.9	70-130		%REC	1	10/12/2012 12:45:24 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MeOH Blank
Project: SWMU NO.1
Collection Date:
Lab ID: 1210521-008
Matrix: MEOH (SOIL)
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/12/2012 5:32:51 PM
Surr: BFB	105	84-116		%REC	1	10/12/2012 5:32:51 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
Toluene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
Ethylbenzene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
Naphthalene	ND	0.10		mg/Kg	1	10/15/2012 9:14:08 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/15/2012 9:14:08 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/15/2012 9:14:08 PM
Acetone	ND	0.75		mg/Kg	1	10/15/2012 9:14:08 PM
Bromobenzene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
Bromoform	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
Bromomethane	ND	0.15		mg/Kg	1	10/15/2012 9:14:08 PM
2-Butanone	ND	0.50		mg/Kg	1	10/15/2012 9:14:08 PM
Carbon disulfide	ND	0.50		mg/Kg	1	10/15/2012 9:14:08 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	10/15/2012 9:14:08 PM
Chlorobenzene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
Chloroethane	ND	0.10		mg/Kg	1	10/15/2012 9:14:08 PM
Chloroform	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
Chloromethane	ND	0.15		mg/Kg	1	10/15/2012 9:14:08 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	10/15/2012 9:14:08 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
Dibromomethane	ND	0.10		mg/Kg	1	10/15/2012 9:14:08 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	10/15/2012 9:14:08 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MeOH Blank
Project: SWMU NO.1
Collection Date:
Lab ID: 1210521-008
Matrix: MEOH (SOIL)
Received Date: 10/10/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
2,2-Dichloropropane	ND	0.10		mg/Kg	1	10/15/2012 9:14:08 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	10/15/2012 9:14:08 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	10/15/2012 9:14:08 PM
2-Hexanone	ND	0.50		mg/Kg	1	10/15/2012 9:14:08 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	10/15/2012 9:14:08 PM
Methylene chloride	ND	0.15		mg/Kg	1	10/15/2012 9:14:08 PM
n-Butylbenzene	ND	0.15		mg/Kg	1	10/15/2012 9:14:08 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
Styrene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	10/15/2012 9:14:08 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	10/15/2012 9:14:08 PM
Vinyl chloride	ND	0.050		mg/Kg	1	10/15/2012 9:14:08 PM
Xylenes, Total	ND	0.10		mg/Kg	1	10/15/2012 9:14:08 PM
Surr: 1,2-Dichloroethane-d4	94.3	70-130		%REC	1	10/15/2012 9:14:08 PM
Surr: 4-Bromofluorobenzene	93.6	70-130		%REC	1	10/15/2012 9:14:08 PM
Surr: Dibromofluoromethane	90.9	70-130		%REC	1	10/15/2012 9:14:08 PM
Surr: Toluene-d8	104	70-130		%REC	1	10/15/2012 9:14:08 PM

Qualifiers:

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

Anatek Labs, Inc.

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

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

Batch #: 121011049
Project Name: 1210521

Analytical Results Report

Sample Number 121011049-001 **Sampling Date** 10/8/2012 **Date/Time Received** 10/11/2012 1:10 PM
Client Sample ID 1210521-001D / SWMU 1-24 (0-0.5) **Sampling Time** 4:05 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/18/2012	CRW	EPA 335.4	
%moisture	4.1	Percent		10/24/2012	CRW	%moisture	

Sample Number 121011049-002 **Sampling Date** 10/8/2012 **Date/Time Received** 10/11/2012 1:10 PM
Client Sample ID 1210521-002D / SWMU 1-24 (0-0.5) DUP **Sampling Time** 4:05 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/18/2012	CRW	EPA 335.4	
%moisture	4.5	Percent		10/24/2012	CRW	%moisture	

Sample Number 121011049-003 **Sampling Date** 10/8/2012 **Date/Time Received** 10/11/2012 1:10 PM
Client Sample ID 1210521-003D / SWMU 1-24 (1.5-2) **Sampling Time** 4:15 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/18/2012	CRW	EPA 335.4	
%moisture	8.6	Percent		10/24/2012	CRW	%moisture	

Anatek Labs, Inc.

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

Batch #: 121011049
Project Name: 1210521

Analytical Results Report

Sample Number 121011049-004 **Sampling Date** 10/8/2012 **Date/Time Received** 10/11/2012 1:10 PM
Client Sample ID 1210521-004D / SWMU 1-24 (10.5-11.5) **Sampling Time** 4:30 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/22/2012	CRW	EPA 335.4	
%moisture	12.6	Percent		10/24/2012	CRW	%moisture	

Sample Number 121011049-005 **Sampling Date** 10/8/2012 **Date/Time Received** 10/11/2012 1:10 PM
Client Sample ID 1210521-005D / SWMU 1-24 (16-18) **Sampling Time** 4:40 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/22/2012	CRW	EPA 335.4	
%moisture	16.3	Percent		10/24/2012	CRW	%moisture	

Sample Number 121011049-006 **Sampling Date** 10/8/2012 **Date/Time Received** 10/11/2012 1:10 PM
Client Sample ID 1210521-006D / SWMU 1-24 (24-26) **Sampling Time** 4:55 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.908	mg/Kg	0.3	10/22/2012	CRW	EPA 335.4	
%moisture	19.4	Percent		10/24/2012	CRW	%moisture	

Anatek Labs, Inc.

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	121011049
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1210521
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	121011049-007	**Sampling Date**	10/8/2012	**Date/Time Received**	10/11/2012 1:10 PM
Client Sample ID	1210521-007D / SWMU 1-24 (32-34)			**Sampling Time**	5:05 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/22/2012	CRW	EPA 335.4	
%moisture	14	Percent		10/24/2012	CRW	%moisture	

Authorized Signature

John Coddington, Lab Manager

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4226**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4226**	RunNo: **6108**
Prep Date: **10/10/2012**	Analysis Date: **10/10/2012**	SeqNo: **176584** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.7		10.00		87.4	77.6	140			

Sample ID **LCS-4226**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4226**	RunNo: **6108**
Prep Date: **10/10/2012**	Analysis Date: **10/10/2012**	SeqNo: **176585** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.8	52.6	130			
Surr: DNOP	4.0		5.000		79.7	77.6	140			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178737** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		103	84	116			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178738** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	114	74	117			
Surr: BFB	1100		1000		111	84	116			

Sample ID **1210582-004BMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178751** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	7.2	5.0	18.26	0	39.3	70	130			S
Surr: BFB	780		730.5		107	84	116			

Sample ID **1210582-004BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178752** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	16	5.0	18.26	0	87.4	70	130	76.0	22.1	R
Surr: BFB	800		730.5		109	84	116	0	0	

Sample ID **B27**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178761** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		105	84	116			

Sample ID **2.5UG GRO LCS-II**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/13/2012**	SeqNo: **178762** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	74	117			
Surr: BFB	1100		1000		112	84	116			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210653-005BMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178768** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	102	70	130			
Surr: BFB	1100		1000		113	84	116			

Sample ID **1210653-005BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178769** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	70	130	7.96	22.1	
Surr: BFB	1200		1000		117	84	116	0	0	S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4282**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **4282**	RunNo: **6255**
Prep Date: **10/12/2012**	Analysis Date: **10/16/2012**	SeqNo: **180339** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		95.6	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		91.8	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.8	70	130			
Surr: Toluene-d8	0.50		0.5000		100	70	130			

Sample ID **lcs-4282**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **4282**	RunNo: **6255**
Prep Date: **10/12/2012**	Analysis Date: **10/16/2012**	SeqNo: **180340** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.2	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		89.6	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.6	70	130			
Surr: Toluene-d8	0.50		0.5000		99.8	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4229**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4229**	RunNo: **6153**
Prep Date: **10/10/2012**	Analysis Date: **10/10/2012**	SeqNo: **177265** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
Naphthalene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
2-Butanone	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4229**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4229**	RunNo: **6153**
Prep Date: **10/10/2012**	Analysis Date: **10/10/2012**	SeqNo: **177265** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	45.5		50.00		90.9	70	130			
Surr: 4-Bromofluorobenzene	48.6		50.00		97.2	70	130			
Surr: Dibromofluoromethane	50.8		50.00		102	70	130			
Surr: Toluene-d8	44.6		50.00		89.3	70	130			

Sample ID **LCS-4229**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4229**	RunNo: **6153**
Prep Date: **10/10/2012**	Analysis Date: **10/10/2012**	SeqNo: **177267** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	8.19	1.00	8.000	0	102	60	140			
Toluene	8.34	1.00	8.000	0	104	60	140			
Chlorobenzene	8.45	1.00	8.000	0	106	60	140			
1,1-Dichloroethene	9.31	1.00	8.000	0	116	60	140			
Trichloroethene (TCE)	6.81	1.00	8.000	0	85.1	60	140			
Surr: 1,2-Dichloroethane-d4	47.6		50.00		95.2	70	130			
Surr: 4-Bromofluorobenzene	45.3		50.00		90.5	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **LCS-4229**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4229**	RunNo: **6153**
Prep Date: **10/10/2012**	Analysis Date: **10/10/2012**	SeqNo: **177267** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	51.1		50.00		102	70	130			
Surr: Toluene-d8	51.1		50.00		102	70	130			

Sample ID **mb-4251**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4251**	RunNo: **6184**
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **178168** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
alene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
2-Butanone	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								

iers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4251**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**	
Client ID: **PBS**	Batch ID: **4251**	RunNo: **6184**	
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **178168**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	45.4		50.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	44.5		50.00		89.0	70	130			
Surr: Dibromofluoromethane	45.4		50.00		90.9	70	130			
Surr: Toluene-d8	43.9		50.00		87.8	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4280**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4280**	RunNo: **6223**
Prep Date: **10/12/2012**	Analysis Date: **10/12/2012**	SeqNo: **179318** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
Naphthalene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Br[illegible]omethane	ND	0.00100								
[illegible]one	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								

Qualifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4280**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4280**	RunNo: **6223**
Prep Date: **10/12/2012**	Analysis Date: **10/12/2012**	SeqNo: **179318** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	45.9		50.00		91.9	70	130			
Surr: 4-Bromofluorobenzene	46.6		50.00		93.3	70	130			
Surr: Dibromofluoromethane	49.4		50.00		98.8	70	130			
Surr: Toluene-d8	46.4		50.00		92.9	70	130			

Sample ID **lcs-4251**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4251**	RunNo: **6184**
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **180403** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	9.63	1.00	10.00	0	96.3	60	140			
Toluene	9.93	1.00	10.00	0	99.3	60	140			
Chlorobenzene	10.3	1.00	10.00	0	103	60	140			
1,1-Dichloroethene	11.1	1.00	10.00	0	111	60	140			
Trichloroethene (TCE)	8.17	1.00	10.00	0	81.7	60	140			
Surr: 1,2-Dichloroethane-d4	45.2		50.00		90.4	70	130			
Surr: 4-Bromofluorobenzene	45.7		50.00		91.4	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4251**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4251**	RunNo: **6184**
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **180403** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	46.8		50.00		93.5	70	130			
Surr: Toluene-d8	49.1		50.00		98.2	70	130			

Sample ID **lcs-4280**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4280**	RunNo: **6223**
Prep Date: **10/12/2012**	Analysis Date: **10/12/2012**	SeqNo: **180404** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	12.3	1.00	12.50	0	98.3	60	140			
Toluene	11.6	1.00	12.50	0	93.2	60	140			
Chlorobenzene	12.4	1.00	12.50	0	99.5	60	140			
1,1-Dichloroethene	13.9	1.00	12.50	0	111	60	140			
Trichloroethene (TCE)	10.5	1.00	12.50	0	84.3	60	140			
Surr: 1,2-Dichloroethane-d4	46.0		50.00		92.0	70	130			
Surr: 4-Bromofluorobenzene	46.6		50.00		93.2	70	130			
Surr: Dibromofluoromethane	46.9		50.00		93.9	70	130			
Surr: Toluene-d8	42.8		50.00		85.7	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4233**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBS**	Batch ID: **4233**	RunNo: **6186**	
Prep Date: **10/10/2012**	Analysis Date: **10/12/2012**	SeqNo: **178244**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4233**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4233**	RunNo: **6186**
Prep Date: **10/10/2012**	Analysis Date: **10/12/2012**	SeqNo: **178244** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
[illegible]aniline	ND	0.40								
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	2.8		3.330		84.7	21.3	145			
Surr: 2-Fluorobiphenyl	1.3		1.670		76.8	20	131			
Surr: 2-Fluorophenol	2.6		3.330		77.5	11.9	130			
Surr: 4-Terphenyl-d14	1.2		1.670		71.4	25.1	149			
Surr: Nitrobenzene-d5	1.4		1.670		84.7	25.6	137			
Surr: Phenol-d5	3.1		3.330		92.6	20.3	132			

Sample ID **lcs-4233**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4233**	RunNo: **6186**
Prep Date: **10/10/2012**	Analysis Date: **10/12/2012**	SeqNo: **178245** Units: **mg/Kg**

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4233**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4233**	RunNo: **6186**
Prep Date: **10/10/2012**	Analysis Date: **10/12/2012**	SeqNo: **178245** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	74.2	49.7	98.1			
4-Chloro-3-methylphenol	2.6	0.50	3.330	0	77.5	43.8	89.1			
2-Chlorophenol	2.6	0.20	3.330	0	78.2	41.1	96.9			
1,4-Dichlorobenzene	1.3	0.20	1.670	0	76.1	41	97.4			
2,4-Dinitrotoluene	1.5	0.50	1.670	0	88.0	44.4	104			
N-Nitrosodi-n-propylamine	1.3	0.20	1.670	0	77.9	39.1	86.9			
4-Nitrophenol	2.7	0.25	3.330	0	80.1	44.2	107			
Pentachlorophenol	2.2	0.40	3.330	0	65.4	36.2	80			
Phenol	2.5	0.20	3.330	0	76.4	42.7	92.7			
Pyrene	1.2	0.20	1.670	0	72.4	34.7	98.8			
1,2,4-Trichlorobenzene	1.3	0.20	1.670	0	79.2	37.8	98.3			
Surr: 2,4,6-Tribromophenol	2.8		3.330		83.6	21.3	145			
Surr: 2-Fluorobiphenyl	1.4		1.670		82.0	20	131			
Surr: 2-Fluorophenol	2.3		3.330		70.1	11.9	130			
Surr: 4-Terphenyl-d14	1.2		1.670		71.4	25.1	149			
Surr: Nitrobenzene-d5	1.4		1.670		86.7	25.6	137			
Surr: Phenol-d5	2.8		3.330		82.9	20.3	132			

Sample ID **1210521-001Cms**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **SWMU 1-24 (0-0.5')**	Batch ID: **4233**	RunNo: **6186**
Prep Date: **10/10/2012**	Analysis Date: **10/12/2012**	SeqNo: **178519** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.5	0.99	1.659	0	89.8	38.6	100			
4-Chloro-3-methylphenol	2.9	2.5	3.309	0	87.7	35.8	108			
2-Chlorophenol	2.8	0.99	3.309	0	83.3	48.2	96.1			
1,4-Dichlorobenzene	1.2	0.99	1.659	0	75.0	42.5	97.6			
2,4-Dinitrotoluene	ND	2.5	1.659	0	93.1	51.2	108			
N-Nitrosodi-n-propylamine	1.4	0.99	1.659	0	83.8	31.6	114			
4-Nitrophenol	3.1	1.2	3.309	0	92.2	22.7	144			
Pentachlorophenol	ND	2.0	3.309	0	59.1	24	109			
Phenol	2.8	0.99	3.309	0	83.5	33.1	108			
Pyrene	1.4	0.99	1.659	0	83.6	42.7	98.9			
1,2,4-Trichlorobenzene	1.4	0.99	1.659	0	82.2	27.1	118			
Surr: 2,4,6-Tribromophenol	3.0		3.309		89.6	21.3	145			
Surr: 2-Fluorobiphenyl	1.4		1.659		86.7	20	131			
Surr: 2-Fluorophenol	2.9		3.309		86.5	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.659		77.2	25.1	149			
Surr: Nitrobenzene-d5	1.4		1.659		83.5	25.6	137			
Surr: Phenol-d5	3.0		3.309		91.1	20.3	132			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210521-001Cmsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **SWMU 1-24 (0-0.5')**	Batch ID: **4233**	RunNo: **6186**
Prep Date: **10/10/2012**	Analysis Date: **10/12/2012**	SeqNo: **178527** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.6	1.0	1.674	0	93.6	38.6	100	5.03	20	
4-Chloro-3-methylphenol	3.1	2.5	3.339	0	93.0	35.8	108	6.82	20	
2-Chlorophenol	2.8	1.0	3.339	0	84.1	48.2	96.1	1.85	20	
1,4-Dichlorobenzene	1.3	1.0	1.674	0	80.3	42.5	97.6	7.71	20	
2,4-Dinitrotoluene	ND	2.5	1.674	0	98.1	51.2	108	0	20	
N-Nitrosodi-n-propylamine	1.5	1.0	1.674	0	86.9	31.6	114	4.52	20	
4-Nitrophenol	3.3	1.3	3.339	0	99.6	22.7	144	8.57	20	
Pentachlorophenol	ND	2.0	3.339	0	59.1	24	109	0	20	
Phenol	2.7	1.0	3.339	0	81.1	33.1	108	1.96	20	
Pyrene	1.6	1.0	1.674	0	95.7	42.7	98.9	14.4	20	
1,2,4-Trichlorobenzene	1.5	1.0	1.674	0	87.1	27.1	118	6.67	20	
Surr: 2,4,6-Tribromophenol	3.0		3.339		88.8	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.5		1.674		87.7	20	131	0	0	
Surr: 2-Fluorophenol	2.8		3.339		85.2	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.3		1.674		79.0	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.5		1.674		88.2	25.6	137	0	0	
Surr: Phenol-d5	3.0		3.339		88.9	20.3	132	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	**MB-4314**	SampType:	**mblk**		TestCode:	**EPA Method 7471: Mercury**				
Client ID:	**PBS**	Batch ID:	**4314**		RunNo:	**6270**				
Prep Date:	**10/15/2012**	Analysis Date:	**10/16/2012**		SeqNo:	**180677**	Units:	**mg/kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	**LCS-4314**	SampType:	**lcs**		TestCode:	**EPA Method 7471: Mercury**				
Client ID:	**LCSS**	Batch ID:	**4314**		RunNo:	**6270**				
Prep Date:	**10/15/2012**	Analysis Date:	**10/16/2012**		SeqNo:	**180678**	Units:	**mg/kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	100	80	120			

Sample ID	**1210582-006CMS**	SampType:	**ms**		TestCode:	**EPA Method 7471: Mercury**				
Client ID:	**BatchQC**	Batch ID:	**4314**		RunNo:	**6270**				
Prep Date:	**10/15/2012**	Analysis Date:	**10/16/2012**		SeqNo:	**180706**	Units:	**mg/kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1669	0.01973	92.8	75	125			

Sample ID	**1210582-006CMSD**	SampType:	**msd**		TestCode:	**EPA Method 7471: Mercury**				
Client ID:	**BatchQC**	Batch ID:	**4314**		RunNo:	**6270**				
Prep Date:	**10/15/2012**	Analysis Date:	**10/16/2012**		SeqNo:	**180707**	Units:	**mg/kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1660	0.01973	95.3	75	125	1.94	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4298**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **4298**	RunNo: **6281**
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **180997** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID **LCS-4298**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **4298**	RunNo: **6281**
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **181002** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	22	2.5	25.00	0	86.4	80	120			
Arsenic	26	2.5	25.00	0	105	80	120			
Barium	25	0.10	25.00	0	98.6	80	120			
Beryllium	26	0.15	25.00	0	104	80	120			
Cadmium	25	0.10	25.00	0	101	80	120			
Chromium	25	0.30	25.00	0	98.3	80	120			
Cobalt	24	0.30	25.00	0	98.0	80	120			
Lead	25	0.25	25.00	0	102	80	120			
Manganese	24	0.10	25.00	0.03550	97.1	80	120			
Nickel	24	0.50	25.00	0	97.2	80	120			
Selenium	25	2.5	25.00	0	101	80	120			
Silver	5.1	0.25	5.000	0.06650	100	80	120			
Vanadium	25	2.5	25.00	0	100	80	120			
Zinc	25	2.5	25.00	0	101	80	120			

Sample ID **1210521-001CMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **SWMU 1-24 (0-0.5')**	Batch ID: **4298**	RunNo: **6281**
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **181043** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	12	24.89	0	0	75	125			S
Arsenic	23	12	24.89	0	90.6	75	125			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210521**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210521-001CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **SWMU 1-24 (0-0.5')** Batch ID: **4298** RunNo: **6281**

Prep Date: **10/15/2012** Analysis Date: **10/16/2012** SeqNo: **181043** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	25	0.75	24.89	0.6775	98.5	75	125			
Cadmium	23	0.50	24.89	0	92.7	75	125			
Chromium	38	1.5	24.89	9.549	114	75	125			
Cobalt	28	1.5	24.89	5.096	90.8	75	125			
Lead	29	1.2	24.89	9.267	80.3	75	125			
Nickel	35	2.5	24.89	8.978	106	75	125			
Selenium	22	12	24.89	0	89.0	75	125			
Silver	4.5	1.2	4.978	0	90.5	75	125			
Vanadium	48	12	24.89	23.50	97.8	75	125			
Zinc	64	12	24.89	33.89	120	75	125			

Sample ID **1210521-001CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **SWMU 1-24 (0-0.5')** Batch ID: **4298** RunNo: **6281**

Prep Date: **10/15/2012** Analysis Date: **10/16/2012** SeqNo: **181046** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	12	24.80	0	0	75	125	0	20	S
Arsenic	22	12	24.80	0	88.1	75	125	3.10	20	
Beryllium	25	0.75	24.80	0.6775	97.4	75	125	1.43	20	
Cadmium	23	0.50	24.80	0	91.2	75	125	1.97	20	
Chromium	33	1.5	24.80	9.549	93.6	75	125	14.6	20	
Cobalt	26	1.5	24.80	5.096	84.8	75	125	5.79	20	
Lead	30	1.2	24.80	9.267	81.9	75	125	1.10	20	
Nickel	30	2.5	24.80	8.978	86.2	75	125	15.4	20	
Selenium	ND	12	24.80	0	0	75	125	200	20	SR
Silver	4.5	1.2	4.960	0	91.3	75	125	0.532	20	
Vanadium	50	12	24.80	23.50	108	75	125	5.11	20	
Zinc	54	12	24.80	33.89	80.8	75	125	16.9	20	

Sample ID **MB-4298** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **PBS** Batch ID: **4298** RunNo: **6310**

Prep Date: **10/15/2012** Analysis Date: **10/17/2012** SeqNo: **181594** Units: **mg/Kg**

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

Sample ID **LCS-4298** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **LCSS** Batch ID: **4298** RunNo: **6310**

Prep Date: **10/15/2012** Analysis Date: **10/17/2012** SeqNo: **181595** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	26	1.0	25.00	0	106	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1210521

Received by/date: LM 10/10/12

Logged By: Michelle Garcia 10/10/2012 8:00:00 AM Michelle Garcia

Completed By: Michelle Garcia 10/10/2012 8:54:43 AM Michelle Garcia

Reviewed By: JRO 10/10/12

Chain of Custody

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

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Not Present			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: ☐ Yes ☐ No
Sample Temperature: [redacted]

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	[redacted]	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/8/12	1605	SOIL	SWMU 1-24 (0-0.5)	2 VIALS	SOBI	-001										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
			SWMU 1-24 (0-0.5') DUP	2 VIALS	SOBI	-002										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1615		SWMU 1-24 (1.5-2')	2 VIALS	SOBI	-003										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1630		SWMU 1-24 (10.5-11.5)	2 VIALS	SOBI	-004										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/9/12	0700	[signature]	[signature]	10/10/12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

Chain-of-Custody Record

Client: WESTERN REFINING, SW, INC
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler:
On Ice: ☐ Yes ☐ No
Sample Temperature: 6

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1201052	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/8/12	1640	SOIL	SWMU 1-24 (16-18')	2 VIALS	SOBI	-005										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1655		SWMU 1-24 (24-26')	2 VIALS	SOBI	-006										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1705		SWMU 1-24 (32-34')	2 VIALS	SOBI	-007										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	—	MEOH	MEOH BLANK	2 VIALS	MEOH	-008										X						

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/9/12	0700			10/10/12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

Rpt	T	Analyte	Units	Synonym	MDL	LOD	LOQ
☐	A	Aluminum	mg/Kg		0.4481	0	
☑	A	Antimony	mg/Kg		0.629	0	
☑	A	Arsenic	mg/Kg		0.6263	0	
☑	A	Barium	mg/Kg		0.0609	0	
☑	A	Beryllium	mg/Kg		0.0093	0	
☐	A	Boron	mg/Kg		0.0626	0	
☑	A	Cadmium	mg/Kg		0.0271	0	
☐	A	Calcium	mg/Kg		6.9713	0	
☑	A	Chromium	mg/Kg		0.1184	0	
☑	A	Cobalt	mg/Kg		0.0689	0	
☐	A	Copper	mg/Kg		0.2323	0	
☑	A	Iron	mg/Kg		0.7476	0	
☑	A	Lead	mg/Kg		0.2194	0	
☐	A	Magnesium	mg/Kg		0.4651	0	
☑	A	Manganese	mg/Kg		0.0212	0	
☐	A	Molybdenum	mg/Kg		0.1423	0	
☑	A	Nickel	mg/Kg		0.1668	0	
☐	A	Potassium	mg/Kg		17.3925	0	
☑	A	Selenium	mg/Kg		1.4025	0	
☑	A	Silver	mg/Kg		0.0354	0	
☐	A	Sodium	mg/Kg		8.4278	0	
☐	A	Thallium	mg/Kg		1.1557	0	
☐	A	Tin	mg/Kg		0.8261	0	
☐	A	Titanium	mg/Kg		0.0342	0	
☐	A	Uranium	mg/Kg		0.7296	0	
☑	A	Vanadium	mg/Kg		0.0565	0	
☑	A	Zinc	mg/Kg		1.0068	0	
☐	I	Yttrium	%		0	0	
☐	I	Yttrium Radial	%		0	0	
☐	X	Uranium-confirmation	mg/Kg		0	0	
☐	X	Silicon	mg/Kg		0	0	

+Hg

+Cn

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

November 15, 2012

Scott Crouch

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.1 OrderNo.: 1210653

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 7 sample(s) on 10/12/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1210653**
Date Reported: **11/15/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210653-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-37 (0-0.5')
Collection Date: 10/10/2012 5:00:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	100	9.9		mg/Kg	1	10/15/2012 8:42:53 AM
Motor Oil Range Organics (MRO)	130	50		mg/Kg	1	10/15/2012 8:42:53 AM
Surr: DNOP	95.4	77.6-140		%REC	1	10/15/2012 8:42:53 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2012 5:03:50 AM
Surr: BFB	106	84-116		%REC	1	10/13/2012 5:03:50 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.051	0.033		mg/kg	1	10/16/2012 5:39:07 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 9:46:22 AM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 9:46:22 AM
Barium	350	1.0		mg/Kg	10	10/25/2012 12:29:16 PM
Beryllium	0.85	0.30		mg/Kg	2	10/25/2012 9:46:22 AM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 9:46:22 AM
Chromium	17	0.60		mg/Kg	2	10/25/2012 9:46:22 AM
Cobalt	4.7	0.60		mg/Kg	2	10/25/2012 9:46:22 AM
Iron	18000	500		mg/Kg	500	11/2/2012 6:21:33 AM
Lead	2.8	0.50		mg/Kg	2	10/25/2012 9:46:22 AM
Manganese	610	2.0		mg/Kg	20	10/25/2012 2:24:36 PM
Nickel	8.4	1.0		mg/Kg	2	10/25/2012 9:46:22 AM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 9:46:22 AM
Silver	ND	0.50		mg/Kg	2	10/29/2012 2:11:45 PM
Vanadium	18	5.0		mg/Kg	2	10/25/2012 9:46:22 AM
Zinc	22	5.0		mg/Kg	2	10/25/2012 9:46:22 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Acenaphthylene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Aniline	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Anthracene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Azobenzene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Benzoic acid	ND	1.0		mg/Kg	1	10/21/2012 11:01:42 AM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/10/2012 5:00:00 PM
Lab ID: 1210653-001 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/21/2012 11:01:42 AM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Carbazole	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 11:01:42 AM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/21/2012 11:01:42 AM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/21/2012 11:01:42 AM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Chrysene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/21/2012 11:01:42 AM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/21/2012 11:01:42 AM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Dibenzofuran	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/21/2012 11:01:42 AM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/21/2012 11:01:42 AM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/21/2012 11:01:42 AM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 11:01:42 AM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/21/2012 11:01:42 AM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 11:01:42 AM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 11:01:42 AM
Fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Fluorene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Hexachloroethane	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Isophorone	ND	1.0		mg/Kg	1	10/21/2012 11:01:42 AM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
2-Methylphenol	ND	1.0		mg/Kg	1	10/21/2012 11:01:42 AM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Naphthalene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/10/2012 5:00:00 PM
Lab ID: 1210653-001 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/21/2012 11:01:42 AM
Nitrobenzene	ND	1.0		mg/Kg	1	10/21/2012 11:01:42 AM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/21/2012 11:01:42 AM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/21/2012 11:01:42 AM
Phenanthrene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Phenol	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Pyrene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Pyridine	ND	1.0		mg/Kg	1	10/21/2012 11:01:42 AM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 11:01:42 AM
Surr: 2,4,6-Tribromophenol	85.3	21.3-145		%REC	1	10/21/2012 11:01:42 AM
Surr: 2-Fluorobiphenyl	86.3	20-131		%REC	1	10/21/2012 11:01:42 AM
Surr: 2-Fluorophenol	78.5	11.9-130		%REC	1	10/21/2012 11:01:42 AM
Surr: 4-Terphenyl-d14	83.1	25.1-149		%REC	1	10/21/2012 11:01:42 AM
Surr: Nitrobenzene-d5	92.0	25.6-137		%REC	1	10/21/2012 11:01:42 AM
Surr: Phenol-d5	80.4	20.3-132		%REC	1	10/21/2012 11:01:42 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00239	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Toluene	0.00454	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Ethylbenzene	0.00119	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Xylenes, Total	0.00526	0.00193		mg/Kg	1	10/12/2012 1:16:16 PM
Methyl tert-butyl ether (MTBE)	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,2,4-Trimethylbenzene	0.00193	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,3,5-Trimethylbenzene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,2-Dichloroethane (EDC)	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,2-Dibromoethane (EDB)	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Naphthalene	ND	0.00193		mg/Kg	1	10/12/2012 1:16:16 PM
1-Methylnaphthalene	ND	0.00385		mg/Kg	1	10/12/2012 1:16:16 PM
2-Methylnaphthalene	ND	0.00385		mg/Kg	1	10/12/2012 1:16:16 PM
Acetone	0.109	0.00964		mg/Kg	1	10/12/2012 1:16:16 PM
Bromobenzene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Bromodichloromethane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Bromoform	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Bromomethane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
2-Butanone	0.0182	0.00964		mg/Kg	1	10/12/2012 1:16:16 PM
Carbon tetrachloride	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Chlorobenzene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Chloroethane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210653-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-37 (0-0.5')
Collection Date: 10/10/2012 5:00:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Chloromethane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
2-Chlorotoluene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Carbon disulfide	ND	0.00964		mg/Kg	1	10/12/2012 1:16:16 PM
4-Chlorotoluene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
cis-1,2-DCE	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
cis-1,3-Dichloropropene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,2-Dibromo-3-chloropropane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Dibromochloromethane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Dibromomethane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,2-Dichlorobenzene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,3-Dichlorobenzene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,4-Dichlorobenzene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Dichlorodifluoromethane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,1-Dichloroethane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,1-Dichloroethene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,2-Dichloropropane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,3-Dichloropropane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
2,2-Dichloropropane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,1-Dichloropropene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Hexachlorobutadiene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Isopropylbenzene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
4-Isopropyltoluene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Methylene chloride	ND	0.00289		mg/Kg	1	10/12/2012 1:16:16 PM
n-Butylbenzene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
2-Hexanone	ND	0.00964		mg/Kg	1	10/12/2012 1:16:16 PM
n-Propylbenzene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
sec-Butylbenzene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Styrene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
4-Methyl-2-pentanone	0.0116	0.00964		mg/Kg	1	10/12/2012 1:16:16 PM
tert-Butylbenzene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,1,1,2-Tetrachloroethane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,1,2,2-Tetrachloroethane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Tetrachloroethene (PCE)	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
trans-1,2-DCE	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
trans-1,3-Dichloropropene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,2,3-Trichlorobenzene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,2,4-Trichlorobenzene	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,1,1-Trichloroethane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
1,1,2-Trichloroethane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Trichloroethene (TCE)	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Trichlorofluoromethane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/10/2012 5:00:00 PM
Lab ID: 1210653-001 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Vinyl chloride	ND	0.000964		mg/Kg	1	10/12/2012 1:16:16 PM
Surr: 1,2-Dichloroethane-d4	99.0	70-130		%REC	1	10/12/2012 1:16:16 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	10/12/2012 1:16:16 PM
Surr: Dibromofluoromethane	109	70-130		%REC	1	10/12/2012 1:16:16 PM
Surr: Toluene-d8	91.2	70-130		%REC	1	10/12/2012 1:16:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210653-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-37 (1.5-2')
Collection Date: 10/10/2012 5:15:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	100	9.9		mg/Kg	1	10/15/2012 9:49:38 AM
Motor Oil Range Organics (MRO)	130	50		mg/Kg	1	10/15/2012 9:49:38 AM
Surr: DNOP	95.1	77.6-140		%REC	1	10/15/2012 9:49:38 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2012 5:32:35 AM
Surr: BFB	103	84-116		%REC	1	10/13/2012 5:32:35 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.054	0.033		mg/kg	1	10/16/2012 5:40:53 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 9:51:37 AM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 9:51:37 AM
Barium	370	1.0		mg/Kg	10	10/25/2012 12:42:54 PM
Beryllium	0.79	0.30		mg/Kg	2	10/25/2012 9:51:37 AM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 9:51:37 AM
Chromium	24	0.60		mg/Kg	2	10/25/2012 9:51:37 AM
Cobalt	4.4	0.60		mg/Kg	2	10/25/2012 9:51:37 AM
Iron	16000	500		mg/Kg	500	11/2/2012 6:24:23 AM
Lead	3.1	0.50		mg/Kg	2	10/25/2012 9:51:37 AM
Manganese	570	2.0		mg/Kg	20	10/25/2012 2:27:00 PM
Nickel	7.6	1.0		mg/Kg	2	10/25/2012 9:51:37 AM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 9:51:37 AM
Silver	ND	0.50		mg/Kg	2	10/29/2012 2:27:29 PM
Vanadium	19	5.0		mg/Kg	2	10/25/2012 9:51:37 AM
Zinc	25	5.0		mg/Kg	2	10/25/2012 9:51:37 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Acenaphthylene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Aniline	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Anthracene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Azobenzene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Benz(a)anthracene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Benzo(a)pyrene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Benzo(b)fluoranthene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Benzo(g,h,i)perylene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Benzo(k)fluoranthene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Benzoic acid	ND	1.0		mg/Kg	1	10/21/2012 12:29:49 PM
Benzyl alcohol	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Bis(2-chloroethoxy)methane	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Bis(2-chloroethyl)ether	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Bis(2-chloroisopropyl)ether	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/10/2012 5:15:00 PM
Lab ID: 1210653-002 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/21/2012 12:29:49 PM
4-Bromophenyl phenyl ether	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Butyl benzyl phthalate	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Carbazole	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 12:29:49 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/21/2012 12:29:49 PM
2-Chloronaphthalene	ND	0.51		mg/Kg	1	10/21/2012 12:29:49 PM
2-Chlorophenol	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
4-Chlorophenyl phenyl ether	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Chrysene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/21/2012 12:29:49 PM
Di-n-octyl phthalate	ND	0.82		mg/Kg	1	10/21/2012 12:29:49 PM
Dibenz(a,h)anthracene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Dibenzofuran	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
1,2-Dichlorobenzene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
1,3-Dichlorobenzene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
1,4-Dichlorobenzene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
3,3'-Dichlorobenzidine	ND	0.51		mg/Kg	1	10/21/2012 12:29:49 PM
Diethyl phthalate	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Dimethyl phthalate	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
2,4-Dichlorophenol	ND	0.82		mg/Kg	1	10/21/2012 12:29:49 PM
2,4-Dimethylphenol	ND	0.61		mg/Kg	1	10/21/2012 12:29:49 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 12:29:49 PM
2,4-Dinitrophenol	ND	0.82		mg/Kg	1	10/21/2012 12:29:49 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 12:29:49 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 12:29:49 PM
Fluoranthene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Fluorene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Hexachlorobenzene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Hexachlorobutadiene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Hexachlorocyclopentadiene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Hexachloroethane	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Indeno(1,2,3-cd)pyrene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Isophorone	ND	1.0		mg/Kg	1	10/21/2012 12:29:49 PM
1-Methylnaphthalene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
2-Methylnaphthalene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
2-Methylphenol	ND	1.0		mg/Kg	1	10/21/2012 12:29:49 PM
3+4-Methylphenol	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
N-Nitrosodi-n-propylamine	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
N-Nitrosodiphenylamine	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Naphthalene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
2-Nitroaniline	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/10/2012 5:15:00 PM
Lab ID: 1210653-002 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
4-Nitroaniline	ND	0.82		mg/Kg	1	10/21/2012 12:29:49 PM
Nitrobenzene	ND	1.0		mg/Kg	1	10/21/2012 12:29:49 PM
2-Nitrophenol	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
4-Nitrophenol	ND	0.51		mg/Kg	1	10/21/2012 12:29:49 PM
Pentachlorophenol	ND	0.82		mg/Kg	1	10/21/2012 12:29:49 PM
Phenanthrene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Phenol	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Pyrene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Pyridine	ND	1.0		mg/Kg	1	10/21/2012 12:29:49 PM
1,2,4-Trichlorobenzene	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
2,4,5-Trichlorophenol	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
2,4,6-Trichlorophenol	ND	0.41		mg/Kg	1	10/21/2012 12:29:49 PM
Surr: 2,4,6-Tribromophenol	96.2	21.3-145		%REC	1	10/21/2012 12:29:49 PM
Surr: 2-Fluorobiphenyl	89.1	20-131		%REC	1	10/21/2012 12:29:49 PM
Surr: 2-Fluorophenol	84.3	11.9-130		%REC	1	10/21/2012 12:29:49 PM
Surr: 4-Terphenyl-d14	89.0	25.1-149		%REC	1	10/21/2012 12:29:49 PM
Surr: Nitrobenzene-d5	102	25.6-137		%REC	1	10/21/2012 12:29:49 PM
Surr: Phenol-d5	82.5	20.3-132		%REC	1	10/21/2012 12:29:49 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00203	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Toluene	0.00259	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Ethylbenzene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Xylenes, Total	0.00305	0.00152		mg/Kg	1	10/12/2012 1:47:09 PM
Methyl tert-butyl ether (MTBE)	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,2,4-Trimethylbenzene	0.00112	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,3,5-Trimethylbenzene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,2-Dichloroethane (EDC)	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,2-Dibromoethane (EDB)	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Naphthalene	ND	0.00152		mg/Kg	1	10/12/2012 1:47:09 PM
1-Methylnaphthalene	ND	0.00304		mg/Kg	1	10/12/2012 1:47:09 PM
2-Methylnaphthalene	ND	0.00304		mg/Kg	1	10/12/2012 1:47:09 PM
Acetone	0.0745	0.00759		mg/Kg	1	10/12/2012 1:47:09 PM
Bromobenzene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Bromodichloromethane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Bromoform	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Bromomethane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
2-Butanone	0.00999	0.00759		mg/Kg	1	10/12/2012 1:47:09 PM
Carbon tetrachloride	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Chlorobenzene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Chloroethane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/10/2012 5:15:00 PM
Lab ID: 1210653-002 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Chloromethane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
2-Chlorotoluene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Carbon disulfide	ND	0.00759		mg/Kg	1	10/12/2012 1:47:09 PM
4-Chlorotoluene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
cis-1,2-DCE	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
cis-1,3-Dichloropropene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,2-Dibromo-3-chloropropane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Dibromochloromethane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Dibromomethane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,2-Dichlorobenzene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,3-Dichlorobenzene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,4-Dichlorobenzene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Dichlorodifluoromethane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,1-Dichloroethane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,1-Dichloroethene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,2-Dichloropropane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,3-Dichloropropane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
2,2-Dichloropropane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,1-Dichloropropene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Hexachlorobutadiene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Isopropylbenzene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
4-Isopropyltoluene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Methylene chloride	ND	0.00228		mg/Kg	1	10/12/2012 1:47:09 PM
n-Butylbenzene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
2-Hexanone	ND	0.00759		mg/Kg	1	10/12/2012 1:47:09 PM
n-Propylbenzene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
sec-Butylbenzene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Styrene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
4-Methyl-2-pentanone	ND	0.00759		mg/Kg	1	10/12/2012 1:47:09 PM
tert-Butylbenzene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,1,1,2-Tetrachloroethane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,1,2,2-Tetrachloroethane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Tetrachloroethene (PCE)	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
trans-1,2-DCE	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
trans-1,3-Dichloropropene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,2,3-Trichlorobenzene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,2,4-Trichlorobenzene	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,1,1-Trichloroethane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
1,1,2-Trichloroethane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Trichloroethene (TCE)	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Trichlorofluoromethane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210653-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-37 (1.5-2')
Collection Date: 10/10/2012 5:15:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Vinyl chloride	ND	0.000759		mg/Kg	1	10/12/2012 1:47:09 PM
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%REC	1	10/12/2012 1:47:09 PM
Surr: 4-Bromofluorobenzene	93.5	70-130		%REC	1	10/12/2012 1:47:09 PM
Surr: Dibromofluoromethane	97.3	70-130		%REC	1	10/12/2012 1:47:09 PM
Surr: Toluene-d8	92.5	70-130		%REC	1	10/12/2012 1:47:09 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (8-8.5')
Project: SWMU NO.1
Collection Date: 10/10/2012 5:30:00 PM
Lab ID: 1210653-003 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/13/2012 3:25:45 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/13/2012 3:25:45 PM
Surr: DNOP	93.5	77.6-140		%REC	1	10/13/2012 3:25:45 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2012 6:01:17 AM
Surr: BFB	108	84-116		%REC	1	10/13/2012 6:01:17 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 5:42:39 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 10:06:49 AM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 10:06:49 AM
Barium	130	1.0		mg/Kg	10	10/25/2012 12:47:59 PM
Beryllium	0.77	0.30		mg/Kg	2	10/25/2012 10:06:49 AM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 10:06:49 AM
Chromium	10	0.60		mg/Kg	2	10/25/2012 10:06:49 AM
Cobalt	4.1	0.60		mg/Kg	2	10/25/2012 10:06:49 AM
Iron	18000	500		mg/Kg	500	11/2/2012 6:27:16 AM
Lead	3.6	0.50		mg/Kg	2	10/25/2012 10:06:49 AM
Manganese	350	1.0		mg/Kg	10	10/25/2012 12:47:59 PM
Nickel	7.3	1.0		mg/Kg	2	10/25/2012 10:06:49 AM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 10:06:49 AM
Silver	ND	0.50		mg/Kg	2	10/29/2012 2:32:46 PM
Vanadium	17	5.0		mg/Kg	2	10/25/2012 10:06:49 AM
Zinc	16	5.0		mg/Kg	2	10/25/2012 10:06:49 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Aniline	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Anthracene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Azobenzene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Benzoic acid	ND	0.49		mg/Kg	1	10/20/2012 9:35:54 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210653-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-37 (8-8.5')
Collection Date: 10/10/2012 5:30:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.49		mg/Kg	1	10/20/2012 9:35:54 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Carbazole	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
4-Chloro-3-methylphenol	ND	0.49		mg/Kg	1	10/20/2012 9:35:54 PM
4-Chloroaniline	ND	0.49		mg/Kg	1	10/20/2012 9:35:54 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/20/2012 9:35:54 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Chrysene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Di-n-butyl phthalate	ND	0.49		mg/Kg	1	10/20/2012 9:35:54 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/20/2012 9:35:54 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/20/2012 9:35:54 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/20/2012 9:35:54 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/20/2012 9:35:54 PM
4,6-Dinitro-2-methylphenol	ND	0.49		mg/Kg	1	10/20/2012 9:35:54 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/20/2012 9:35:54 PM
2,4-Dinitrotoluene	ND	0.49		mg/Kg	1	10/20/2012 9:35:54 PM
2,6-Dinitrotoluene	ND	0.49		mg/Kg	1	10/20/2012 9:35:54 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Fluorene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Isophorone	ND	0.49		mg/Kg	1	10/20/2012 9:35:54 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
2-Methylphenol	ND	0.49		mg/Kg	1	10/20/2012 9:35:54 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Naphthalene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (8-8.5')
Project: SWMU NO.1
Collection Date: 10/10/2012 5:30:00 PM
Lab ID: 1210653-003 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/20/2012 9:35:54 PM
Nitrobenzene	ND	0.49		mg/Kg	1	10/20/2012 9:35:54 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/20/2012 9:35:54 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/20/2012 9:35:54 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Phenol	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Pyrene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Pyridine	ND	0.49		mg/Kg	1	10/20/2012 9:35:54 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/20/2012 9:35:54 PM
Surr: 2,4,6-Tribromophenol	76.3	21.3-145		%REC	1	10/20/2012 9:35:54 PM
Surr: 2-Fluorobiphenyl	85.2	20-131		%REC	1	10/20/2012 9:35:54 PM
Surr: 2-Fluorophenol	83.5	11.9-130		%REC	1	10/20/2012 9:35:54 PM
Surr: 4-Terphenyl-d14	79.6	25.1-149		%REC	1	10/20/2012 9:35:54 PM
Surr: Nitrobenzene-d5	91.7	25.6-137		%REC	1	10/20/2012 9:35:54 PM
Surr: Phenol-d5	89.2	20.3-132		%REC	1	10/20/2012 9:35:54 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00174	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Toluene	0.00109	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Ethylbenzene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Xylenes, Total	ND	0.00210		mg/Kg	1	10/12/2012 5:22:40 PM
Methyl tert-butyl ether (MTBE)	0.0101	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,2,4-Trimethylbenzene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,3,5-Trimethylbenzene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,2-Dichloroethane (EDC)	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,2-Dibromoethane (EDB)	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Naphthalene	ND	0.00210		mg/Kg	1	10/12/2012 5:22:40 PM
1-Methylnaphthalene	ND	0.00420		mg/Kg	1	10/12/2012 5:22:40 PM
2-Methylnaphthalene	ND	0.00420		mg/Kg	1	10/12/2012 5:22:40 PM
Acetone	0.0133	0.0105		mg/Kg	1	10/12/2012 5:22:40 PM
Bromobenzene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Bromodichloromethane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Bromoform	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Bromomethane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
2-Butanone	ND	0.0105		mg/Kg	1	10/12/2012 5:22:40 PM
Carbon tetrachloride	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Chlorobenzene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Chloroethane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210653-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-37 (8-8.5')
Collection Date: 10/10/2012 5:30:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Chloromethane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
2-Chlorotoluene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Carbon disulfide	ND	0.0105		mg/Kg	1	10/12/2012 5:22:40 PM
4-Chlorotoluene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
cis-1,2-DCE	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
cis-1,3-Dichloropropene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,2-Dibromo-3-chloropropane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Dibromochloromethane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Dibromomethane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,2-Dichlorobenzene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,3-Dichlorobenzene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,4-Dichlorobenzene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Dichlorodifluoromethane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,1-Dichloroethane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,1-Dichloroethene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,2-Dichloropropane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,3-Dichloropropane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
2,2-Dichloropropane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,1-Dichloropropene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Hexachlorobutadiene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Isopropylbenzene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
4-Isopropyltoluene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Methylene chloride	ND	0.00315		mg/Kg	1	10/12/2012 5:22:40 PM
n-Butylbenzene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
2-Hexanone	ND	0.0105		mg/Kg	1	10/12/2012 5:22:40 PM
n-Propylbenzene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
sec-Butylbenzene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Styrene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
4-Methyl-2-pentanone	ND	0.0105		mg/Kg	1	10/12/2012 5:22:40 PM
tert-Butylbenzene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,1,1,2-Tetrachloroethane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,1,2,2-Tetrachloroethane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Tetrachloroethene (PCE)	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
trans-1,2-DCE	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
trans-1,3-Dichloropropene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,2,3-Trichlorobenzene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,2,4-Trichlorobenzene	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,1,1-Trichloroethane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
1,1,2-Trichloroethane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Trichloroethene (TCE)	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Trichlorofluoromethane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (8-8.5')
Project: SWMU NO.1
Collection Date: 10/10/2012 5:30:00 PM
Lab ID: 1210653-003 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Vinyl chloride	ND	0.00105		mg/Kg	1	10/12/2012 5:22:40 PM
Surr: 1,2-Dichloroethane-d4	97.7	70-130		%REC	1	10/12/2012 5:22:40 PM
Surr: 4-Bromofluorobenzene	90.6	70-130		%REC	1	10/12/2012 5:22:40 PM
Surr: Dibromofluoromethane	96.8	70-130		%REC	1	10/12/2012 5:22:40 PM
Surr: Toluene-d8	89.1	70-130		%REC	1	10/12/2012 5:22:40 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210653-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-37 (8.5-9')
Collection Date: 10/10/2012 5:40:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/13/2012 3:50:51 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/13/2012 3:50:51 PM
Surr: DNOP	95.1	77.6-140		%REC	1	10/13/2012 3:50:51 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2012 6:58:44 AM
Surr: BFB	105	84-116		%REC	1	10/13/2012 6:58:44 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 5:44:26 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 10:12:01 AM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 10:12:01 AM
Barium	130	1.0		mg/Kg	10	10/25/2012 12:54:40 PM
Beryllium	0.83	0.30		mg/Kg	2	10/25/2012 10:12:01 AM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 10:12:01 AM
Chromium	8.6	0.60		mg/Kg	2	10/25/2012 10:12:01 AM
Cobalt	3.8	0.60		mg/Kg	2	10/25/2012 10:12:01 AM
Iron	16000	500		mg/Kg	500	11/2/2012 6:30:08 AM
Lead	2.8	0.50		mg/Kg	2	10/25/2012 10:12:01 AM
Manganese	230	1.0		mg/Kg	10	10/25/2012 12:54:40 PM
Nickel	6.9	1.0		mg/Kg	2	10/25/2012 10:12:01 AM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 10:12:01 AM
Silver	ND	0.50		mg/Kg	2	10/29/2012 2:38:00 PM
Vanadium	14	5.0		mg/Kg	2	10/25/2012 10:12:01 AM
Zinc	13	5.0		mg/Kg	2	10/25/2012 10:12:01 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Aniline	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Anthracene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Azobenzene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/20/2012 10:05:15 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (8.5-9')
Project: SWMU NO.1
Collection Date: 10/10/2012 5:40:00 PM
Lab ID: 1210653-004 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/20/2012 10:05:15 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Carbazole	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/20/2012 10:05:15 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/20/2012 10:05:15 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/20/2012 10:05:15 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Chrysene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/20/2012 10:05:15 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/20/2012 10:05:15 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/20/2012 10:05:15 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/20/2012 10:05:15 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/20/2012 10:05:15 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/20/2012 10:05:15 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/20/2012 10:05:15 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/20/2012 10:05:15 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/20/2012 10:05:15 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Fluorene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Isophorone	ND	0.50		mg/Kg	1	10/20/2012 10:05:15 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/20/2012 10:05:15 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Naphthalene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210653-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-37 (8.5-9')
Collection Date: 10/10/2012 5:40:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/20/2012 10:05:15 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/20/2012 10:05:15 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/20/2012 10:05:15 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/20/2012 10:05:15 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Phenol	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Pyrene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Pyridine	ND	0.50		mg/Kg	1	10/20/2012 10:05:15 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/20/2012 10:05:15 PM
Surr: 2,4,6-Tribromophenol	82.8	21.3-145		%REC	1	10/20/2012 10:05:15 PM
Surr: 2-Fluorobiphenyl	92.7	20-131		%REC	1	10/20/2012 10:05:15 PM
Surr: 2-Fluorophenol	83.4	11.9-130		%REC	1	10/20/2012 10:05:15 PM
Surr: 4-Terphenyl-d14	81.7	25.1-149		%REC	1	10/20/2012 10:05:15 PM
Surr: Nitrobenzene-d5	97.4	25.6-137		%REC	1	10/20/2012 10:05:15 PM
Surr: Phenol-d5	90.8	20.3-132		%REC	1	10/20/2012 10:05:15 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00221	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Toluene	0.00179	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Ethylbenzene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Xylenes, Total	ND	0.00273		mg/Kg	1	10/12/2012 2:18:01 PM
Methyl tert-butyl ether (MTBE)	0.0444	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,2,4-Trimethylbenzene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,3,5-Trimethylbenzene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,2-Dichloroethane (EDC)	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,2-Dibromoethane (EDB)	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Naphthalene	ND	0.00273		mg/Kg	1	10/12/2012 2:18:01 PM
1-Methylnaphthalene	ND	0.00546		mg/Kg	1	10/12/2012 2:18:01 PM
2-Methylnaphthalene	ND	0.00546		mg/Kg	1	10/12/2012 2:18:01 PM
Acetone	0.0148	0.0136		mg/Kg	1	10/12/2012 2:18:01 PM
Bromobenzene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Bromodichloromethane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Bromoform	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Bromomethane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
2-Butanone	ND	0.0136		mg/Kg	1	10/12/2012 2:18:01 PM
Carbon tetrachloride	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Chlorobenzene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Chloroethane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (8.5-9')
Project: SWMU NO.1
Collection Date: 10/10/2012 5:40:00 PM
Lab ID: 1210653-004 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Chloromethane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
2-Chlorotoluene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Carbon disulfide	ND	0.0136		mg/Kg	1	10/12/2012 2:18:01 PM
4-Chlorotoluene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
cis-1,2-DCE	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
cis-1,3-Dichloropropene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,2-Dibromo-3-chloropropane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Dibromochloromethane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Dibromomethane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,2-Dichlorobenzene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,3-Dichlorobenzene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,4-Dichlorobenzene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Dichlorodifluoromethane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,1-Dichloroethane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,1-Dichloroethene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,2-Dichloropropane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,3-Dichloropropane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
2,2-Dichloropropane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,1-Dichloropropene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Hexachlorobutadiene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Isopropylbenzene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
4-Isopropyltoluene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Methylene chloride	ND	0.00409		mg/Kg	1	10/12/2012 2:18:01 PM
n-Butylbenzene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
2-Hexanone	ND	0.0136		mg/Kg	1	10/12/2012 2:18:01 PM
n-Propylbenzene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
sec-Butylbenzene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Styrene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
4-Methyl-2-pentanone	ND	0.0136		mg/Kg	1	10/12/2012 2:18:01 PM
tert-Butylbenzene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,1,1,2-Tetrachloroethane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,1,2,2-Tetrachloroethane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Tetrachloroethene (PCE)	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
trans-1,2-DCE	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
trans-1,3-Dichloropropene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,2,3-Trichlorobenzene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,2,4-Trichlorobenzene	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,1,1-Trichloroethane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
1,1,2-Trichloroethane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Trichloroethene (TCE)	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Trichlorofluoromethane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210653-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-37 (8.5-9')
Collection Date: 10/10/2012 5:40:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Vinyl chloride	ND	0.00136		mg/Kg	1	10/12/2012 2:18:01 PM
Surr: 1,2-Dichloroethane-d4	97.1	70-130		%REC	1	10/12/2012 2:18:01 PM
Surr: 4-Bromofluorobenzene	92.2	70-130		%REC	1	10/12/2012 2:18:01 PM
Surr: Dibromofluoromethane	94.0	70-130		%REC	1	10/12/2012 2:18:01 PM
Surr: Toluene-d8	101	70-130		%REC	1	10/12/2012 2:18:01 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210653-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-37 (12-13')
Collection Date: 10/10/2012 5:55:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/13/2012 4:16:00 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/13/2012 4:16:00 PM
Surr: DNOP	96.3	77.6-140		%REC	1	10/13/2012 4:16:00 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2012 7:27:25 AM
Surr: BFB	110	84-116		%REC	1	10/13/2012 7:27:25 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 5:46:14 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 10:17:05 AM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 10:17:05 AM
Barium	210	1.0		mg/Kg	10	10/25/2012 12:59:33 PM
Beryllium	0.72	0.30		mg/Kg	2	10/25/2012 10:17:05 AM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 10:17:05 AM
Chromium	15	0.60		mg/Kg	2	10/25/2012 10:17:05 AM
Cobalt	4.1	0.60		mg/Kg	2	10/25/2012 10:17:05 AM
Iron	15000	500		mg/Kg	500	11/2/2012 6:43:03 AM
Lead	2.8	0.50		mg/Kg	2	10/25/2012 10:17:05 AM
Manganese	530	2.0		mg/Kg	20	10/25/2012 2:32:04 PM
Nickel	6.9	1.0		mg/Kg	2	10/25/2012 10:17:05 AM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 10:17:05 AM
Silver	ND	0.50		mg/Kg	2	10/29/2012 2:43:15 PM
Vanadium	17	5.0		mg/Kg	2	10/25/2012 10:17:05 AM
Zinc	16	5.0		mg/Kg	2	10/25/2012 10:17:05 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Aniline	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Anthracene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Azobenzene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/21/2012 8:07:34 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (12-13')
Project: SWMU NO.1
Collection Date: 10/10/2012 5:55:00 PM
Lab ID: 1210653-005 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/21/2012 8:07:34 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Carbazole	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 8:07:34 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/21/2012 8:07:34 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/21/2012 8:07:34 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Chrysene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/21/2012 8:07:34 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 8:07:34 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/21/2012 8:07:34 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 8:07:34 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/21/2012 8:07:34 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 8:07:34 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/21/2012 8:07:34 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 8:07:34 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 8:07:34 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Fluorene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Isophorone	ND	0.50		mg/Kg	1	10/21/2012 8:07:34 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/21/2012 8:07:34 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Naphthalene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (12-13')
Project: SWMU NO.1
Collection Date: 10/10/2012 5:55:00 PM
Lab ID: 1210653-005 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 8:07:34 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/21/2012 8:07:34 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/21/2012 8:07:34 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/21/2012 8:07:34 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Phenol	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Pyrene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Pyridine	ND	0.50		mg/Kg	1	10/21/2012 8:07:34 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 8:07:34 AM
Surr: 2,4,6-Tribromophenol	93.7	21.3-145		%REC	1	10/21/2012 8:07:34 AM
Surr: 2-Fluorobiphenyl	88.9	20-131		%REC	1	10/21/2012 8:07:34 AM
Surr: 2-Fluorophenol	85.9	11.9-130		%REC	1	10/21/2012 8:07:34 AM
Surr: 4-Terphenyl-d14	90.4	25.1-149		%REC	1	10/21/2012 8:07:34 AM
Surr: Nitrobenzene-d5	105	25.6-137		%REC	1	10/21/2012 8:07:34 AM
Surr: Phenol-d5	87.5	20.3-132		%REC	1	10/21/2012 8:07:34 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00165	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Toluene	0.000948	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Ethylbenzene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Xylenes, Total	ND	0.00184		mg/Kg	1	10/12/2012 2:48:49 PM
Methyl tert-butyl ether (MTBE)	0.00957	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,2,4-Trimethylbenzene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,3,5-Trimethylbenzene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,2-Dichloroethane (EDC)	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,2-Dibromoethane (EDB)	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Naphthalene	ND	0.00184		mg/Kg	1	10/12/2012 2:48:49 PM
1-Methylnaphthalene	ND	0.00368		mg/Kg	1	10/12/2012 2:48:49 PM
2-Methylnaphthalene	ND	0.00368		mg/Kg	1	10/12/2012 2:48:49 PM
Acetone	0.0141	0.00921		mg/Kg	1	10/12/2012 2:48:49 PM
Bromobenzene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Bromodichloromethane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Bromoform	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Bromomethane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
2-Butanone	ND	0.00921		mg/Kg	1	10/12/2012 2:48:49 PM
Carbon tetrachloride	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Chlorobenzene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Chloroethane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210653-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-37 (12-13')
Collection Date: 10/10/2012 5:55:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Chloromethane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
2-Chlorotoluene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Carbon disulfide	ND	0.00921		mg/Kg	1	10/12/2012 2:48:49 PM
4-Chlorotoluene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
cis-1,2-DCE	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
cis-1,3-Dichloropropene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,2-Dibromo-3-chloropropane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Dibromochloromethane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Dibromomethane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,2-Dichlorobenzene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,3-Dichlorobenzene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,4-Dichlorobenzene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Dichlorodifluoromethane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,1-Dichloroethane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,1-Dichloroethene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,2-Dichloropropane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,3-Dichloropropane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
2,2-Dichloropropane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,1-Dichloropropene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Hexachlorobutadiene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Isopropylbenzene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
4-Isopropyltoluene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Methylene chloride	ND	0.00276		mg/Kg	1	10/12/2012 2:48:49 PM
n-Butylbenzene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
2-Hexanone	ND	0.00921		mg/Kg	1	10/12/2012 2:48:49 PM
n-Propylbenzene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
sec-Butylbenzene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Styrene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
4-Methyl-2-pentanone	ND	0.00921		mg/Kg	1	10/12/2012 2:48:49 PM
tert-Butylbenzene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,1,1,2-Tetrachloroethane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,1,2,2-Tetrachloroethane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Tetrachloroethene (PCE)	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
trans-1,2-DCE	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
trans-1,3-Dichloropropene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,2,3-Trichlorobenzene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,2,4-Trichlorobenzene	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,1,1-Trichloroethane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
1,1,2-Trichloroethane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Trichloroethene (TCE)	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Trichlorofluoromethane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (12-13')
Project: SWMU NO.1
Collection Date: 10/10/2012 5:55:00 PM
Lab ID: 1210653-005 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Vinyl chloride	ND	0.000921		mg/Kg	1	10/12/2012 2:48:49 PM
Surr: 1,2-Dichloroethane-d4	110	70-130		%REC	1	10/12/2012 2:48:49 PM
Surr: 4-Bromofluorobenzene	91.1	70-130		%REC	1	10/12/2012 2:48:49 PM
Surr: Dibromofluoromethane	112	70-130		%REC	1	10/12/2012 2:48:49 PM
Surr: Toluene-d8	90.1	70-130		%REC	1	10/12/2012 2:48:49 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (13-14')
Project: SWMU NO.1
Collection Date: 10/10/2012 6:05:00 PM
Lab ID: 1210653-006 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/13/2012 4:41:24 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/13/2012 4:41:24 PM
Surr: DNOP	96.1	77.6-140		%REC	1	10/13/2012 4:41:24 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/19/2012 6:38:09 PM
Surr: BFB	94.3	84-116		%REC	1	10/19/2012 6:38:09 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 5:55:24 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/25/2012 1:04:23 PM
Arsenic	ND	12		mg/Kg	5	10/25/2012 1:04:23 PM
Barium	280	1.0		mg/Kg	10	10/25/2012 1:06:48 PM
Beryllium	1.2	0.75		mg/Kg	5	10/25/2012 1:04:23 PM
Cadmium	ND	0.50		mg/Kg	5	10/25/2012 1:04:23 PM
Chromium	13	1.5		mg/Kg	5	10/25/2012 1:04:23 PM
Cobalt	6.0	1.5		mg/Kg	5	10/25/2012 1:04:23 PM
Iron	20000	500		mg/Kg	500	11/2/2012 6:45:53 AM
Lead	4.0	1.2		mg/Kg	5	10/25/2012 1:04:23 PM
Manganese	320	1.0		mg/Kg	10	10/25/2012 1:06:48 PM
Nickel	11	2.5		mg/Kg	5	10/25/2012 1:04:23 PM
Selenium	ND	12		mg/Kg	5	10/25/2012 1:04:23 PM
Silver	ND	1.3		mg/Kg	5	10/29/2012 2:48:38 PM
Vanadium	20	12		mg/Kg	5	10/25/2012 1:04:23 PM
Zinc	20	12		mg/Kg	5	10/25/2012 1:04:23 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Aniline	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Anthracene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Azobenzene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Benzoic acid	ND	0.49		mg/Kg	1	10/20/2012 10:34:36 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM

Qualifiers:

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (13-14')
Project: SWMU NO.1
Collection Date: 10/10/2012 6:05:00 PM
Lab ID: 1210653-006 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.49		mg/Kg	1	10/20/2012 10:34:36 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Carbazole	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
4-Chloro-3-methylphenol	ND	0.49		mg/Kg	1	10/20/2012 10:34:36 PM
4-Chloroaniline	ND	0.49		mg/Kg	1	10/20/2012 10:34:36 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/20/2012 10:34:36 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Chrysene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Di-n-butyl phthalate	ND	0.49		mg/Kg	1	10/20/2012 10:34:36 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/20/2012 10:34:36 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/20/2012 10:34:36 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/20/2012 10:34:36 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/20/2012 10:34:36 PM
4,6-Dinitro-2-methylphenol	ND	0.49		mg/Kg	1	10/20/2012 10:34:36 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/20/2012 10:34:36 PM
2,4-Dinitrotoluene	ND	0.49		mg/Kg	1	10/20/2012 10:34:36 PM
2,6-Dinitrotoluene	ND	0.49		mg/Kg	1	10/20/2012 10:34:36 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Fluorene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Isophorone	ND	0.49		mg/Kg	1	10/20/2012 10:34:36 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
2-Methylphenol	ND	0.49		mg/Kg	1	10/20/2012 10:34:36 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Naphthalene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (13-14')
Project: SWMU NO.1
Collection Date: 10/10/2012 6:05:00 PM
Lab ID: 1210653-006 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/20/2012 10:34:36 PM
Nitrobenzene	ND	0.49		mg/Kg	1	10/20/2012 10:34:36 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/20/2012 10:34:36 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/20/2012 10:34:36 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Phenol	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Pyrene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Pyridine	ND	0.49		mg/Kg	1	10/20/2012 10:34:36 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/20/2012 10:34:36 PM
Surr: 2,4,6-Tribromophenol	81.2	21.3-145		%REC	1	10/20/2012 10:34:36 PM
Surr: 2-Fluorobiphenyl	95.7	20-131		%REC	1	10/20/2012 10:34:36 PM
Surr: 2-Fluorophenol	79.8	11.9-130		%REC	1	10/20/2012 10:34:36 PM
Surr: 4-Terphenyl-d14	78.5	25.1-149		%REC	1	10/20/2012 10:34:36 PM
Surr: Nitrobenzene-d5	97.8	25.6-137		%REC	1	10/20/2012 10:34:36 PM
Surr: Phenol-d5	92.6	20.3-132		%REC	1	10/20/2012 10:34:36 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00157	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Toluene	0.00127	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Ethylbenzene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Xylenes, Total	ND	0.00168		mg/Kg	1	10/12/2012 3:19:36 PM
Methyl tert-butyl ether (MTBE)	0.00477	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,2,4-Trimethylbenzene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,3,5-Trimethylbenzene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,2-Dichloroethane (EDC)	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,2-Dibromoethane (EDB)	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Naphthalene	ND	0.00168		mg/Kg	1	10/12/2012 3:19:36 PM
1-Methylnaphthalene	ND	0.00336		mg/Kg	1	10/12/2012 3:19:36 PM
2-Methylnaphthalene	ND	0.00336		mg/Kg	1	10/12/2012 3:19:36 PM
Acetone	0.0148	0.00840		mg/Kg	1	10/12/2012 3:19:36 PM
Bromobenzene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Bromodichloromethane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Bromoform	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Bromomethane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
2-Butanone	ND	0.00840		mg/Kg	1	10/12/2012 3:19:36 PM
Carbon tetrachloride	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Chlorobenzene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Chloroethane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (13-14')
Project: SWMU NO.1
Collection Date: 10/10/2012 6:05:00 PM
Lab ID: 1210653-006 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Chloromethane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
2-Chlorotoluene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Carbon disulfide	ND	0.00840		mg/Kg	1	10/12/2012 3:19:36 PM
4-Chlorotoluene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
cis-1,2-DCE	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
cis-1,3-Dichloropropene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,2-Dibromo-3-chloropropane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Dibromochloromethane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Dibromomethane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,2-Dichlorobenzene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,3-Dichlorobenzene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,4-Dichlorobenzene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Dichlorodifluoromethane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,1-Dichloroethane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,1-Dichloroethene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,2-Dichloropropane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,3-Dichloropropane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
2,2-Dichloropropane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,1-Dichloropropene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Hexachlorobutadiene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Isopropylbenzene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
4-Isopropyltoluene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Methylene chloride	ND	0.00252		mg/Kg	1	10/12/2012 3:19:36 PM
n-Butylbenzene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
2-Hexanone	ND	0.00840		mg/Kg	1	10/12/2012 3:19:36 PM
n-Propylbenzene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
sec-Butylbenzene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Styrene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
4-Methyl-2-pentanone	ND	0.00840		mg/Kg	1	10/12/2012 3:19:36 PM
tert-Butylbenzene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,1,1,2-Tetrachloroethane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,1,2,2-Tetrachloroethane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Tetrachloroethene (PCE)	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
trans-1,2-DCE	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
trans-1,3-Dichloropropene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,2,3-Trichlorobenzene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,2,4-Trichlorobenzene	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,1,1-Trichloroethane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
1,1,2-Trichloroethane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Trichloroethene (TCE)	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Trichlorofluoromethane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210653-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-37 (13-14')
Collection Date: 10/10/2012 6:05:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Vinyl chloride	ND	0.000840		mg/Kg	1	10/12/2012 3:19:36 PM
Surr: 1,2-Dichloroethane-d4	92.7	70-130		%REC	1	10/12/2012 3:19:36 PM
Surr: 4-Bromofluorobenzene	91.8	70-130		%REC	1	10/12/2012 3:19:36 PM
Surr: Dibromofluoromethane	92.8	70-130		%REC	1	10/12/2012 3:19:36 PM
Surr: Toluene-d8	88.4	70-130		%REC	1	10/12/2012 3:19:36 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210653-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-37 (17-18')
Collection Date: 10/10/2012 6:20:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/13/2012 5:06:26 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/13/2012 5:06:26 PM
Surr: DNOP	94.9	77.6-140		%REC	1	10/13/2012 5:06:26 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/19/2012 7:06:58 PM
Surr: BFB	89.2	84-116		%REC	1	10/19/2012 7:06:58 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 5:57:11 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/25/2012 1:20:11 PM
Arsenic	ND	12		mg/Kg	5	10/25/2012 1:20:11 PM
Barium	870	5.0		mg/Kg	50	10/25/2012 1:22:36 PM
Beryllium	1.0	0.75		mg/Kg	5	10/25/2012 1:20:11 PM
Cadmium	ND	0.50		mg/Kg	5	10/25/2012 1:20:11 PM
Chromium	13	1.5		mg/Kg	5	10/25/2012 1:20:11 PM
Cobalt	6.2	1.5		mg/Kg	5	10/25/2012 1:20:11 PM
Iron	24000	1000		mg/Kg	1000	11/2/2012 6:48:43 AM
Lead	5.0	1.2		mg/Kg	5	10/25/2012 1:20:11 PM
Manganese	1400	5.0		mg/Kg	50	10/25/2012 1:22:36 PM
Nickel	12	2.5		mg/Kg	5	10/25/2012 1:20:11 PM
Selenium	ND	12		mg/Kg	5	10/25/2012 1:20:11 PM
Silver	ND	1.2		mg/Kg	5	10/29/2012 3:03:53 PM
Vanadium	16	12		mg/Kg	5	10/25/2012 1:20:11 PM
Zinc	21	12		mg/Kg	5	10/25/2012 1:20:11 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Aniline	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Anthracene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Azobenzene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/20/2012 11:03:55 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210653-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-37 (17-18')
Collection Date: 10/10/2012 6:20:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/20/2012 11:03:55 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Carbazole	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/20/2012 11:03:55 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/20/2012 11:03:55 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/20/2012 11:03:55 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Chrysene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/20/2012 11:03:55 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/20/2012 11:03:55 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/20/2012 11:03:55 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/20/2012 11:03:55 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/20/2012 11:03:55 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/20/2012 11:03:55 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/20/2012 11:03:55 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/20/2012 11:03:55 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/20/2012 11:03:55 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Fluorene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Isophorone	ND	0.50		mg/Kg	1	10/20/2012 11:03:55 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/20/2012 11:03:55 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Naphthalene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (17-18')
Project: SWMU NO.1
Collection Date: 10/10/2012 6:20:00 PM
Lab ID: 1210653-007 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/20/2012 11:03:55 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/20/2012 11:03:55 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/20/2012 11:03:55 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/20/2012 11:03:55 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Phenol	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Pyrene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Pyridine	ND	0.50		mg/Kg	1	10/20/2012 11:03:55 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/20/2012 11:03:55 PM
Surr: 2,4,6-Tribromophenol	76.4	21.3-145		%REC	1	10/20/2012 11:03:55 PM
Surr: 2-Fluorobiphenyl	87.2	20-131		%REC	1	10/20/2012 11:03:55 PM
Surr: 2-Fluorophenol	76.7	11.9-130		%REC	1	10/20/2012 11:03:55 PM
Surr: 4-Terphenyl-d14	73.6	25.1-149		%REC	1	10/20/2012 11:03:55 PM
Surr: Nitrobenzene-d5	89.0	25.6-137		%REC	1	10/20/2012 11:03:55 PM
Surr: Phenol-d5	80.7	20.3-132		%REC	1	10/20/2012 11:03:55 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.0106	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Toluene	0.00740	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Ethylbenzene	0.00187	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Xylenes, Total	0.00597	0.00161		mg/Kg	1	10/12/2012 3:50:25 PM
Methyl tert-butyl ether (MTBE)	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,2,4-Trimethylbenzene	0.00196	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,3,5-Trimethylbenzene	0.00122	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,2-Dichloroethane (EDC)	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,2-Dibromoethane (EDB)	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Naphthalene	ND	0.00161		mg/Kg	1	10/12/2012 3:50:25 PM
1-Methylnaphthalene	ND	0.00322		mg/Kg	1	10/12/2012 3:50:25 PM
2-Methylnaphthalene	ND	0.00322		mg/Kg	1	10/12/2012 3:50:25 PM
Acetone	0.0127	0.00806		mg/Kg	1	10/12/2012 3:50:25 PM
Bromobenzene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Bromodichloromethane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Bromoform	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Bromomethane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
2-Butanone	ND	0.00806		mg/Kg	1	10/12/2012 3:50:25 PM
Carbon tetrachloride	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Chlorobenzene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Chloroethane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210653-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-37 (17-18')
Collection Date: 10/10/2012 6:20:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Chloromethane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
2-Chlorotoluene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Carbon disulfide	ND	0.00806		mg/Kg	1	10/12/2012 3:50:25 PM
4-Chlorotoluene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
cis-1,2-DCE	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
cis-1,3-Dichloropropene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,2-Dibromo-3-chloropropane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Dibromochloromethane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Dibromomethane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,2-Dichlorobenzene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,3-Dichlorobenzene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,4-Dichlorobenzene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Dichlorodifluoromethane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,1-Dichloroethane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,1-Dichloroethene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,2-Dichloropropane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,3-Dichloropropane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
2,2-Dichloropropane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,1-Dichloropropene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Hexachlorobutadiene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Isopropylbenzene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
4-Isopropyltoluene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Methylene chloride	ND	0.00242		mg/Kg	1	10/12/2012 3:50:25 PM
n-Butylbenzene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
2-Hexanone	ND	0.00806		mg/Kg	1	10/12/2012 3:50:25 PM
n-Propylbenzene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
sec-Butylbenzene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Styrene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
4-Methyl-2-pentanone	ND	0.00806		mg/Kg	1	10/12/2012 3:50:25 PM
tert-Butylbenzene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,1,1,2-Tetrachloroethane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,1,2,2-Tetrachloroethane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Tetrachloroethene (PCE)	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
trans-1,2-DCE	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
trans-1,3-Dichloropropene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,2,3-Trichlorobenzene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,2,4-Trichlorobenzene	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,1,1-Trichloroethane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
1,1,2-Trichloroethane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Trichloroethene (TCE)	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Trichlorofluoromethane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 (17-18')
Project: SWMU NO.1
Collection Date: 10/10/2012 6:20:00 PM
Lab ID: 1210653-007 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Vinyl chloride	ND	0.000806		mg/Kg	1	10/12/2012 3:50:25 PM
Surr: 1,2-Dichloroethane-d4	99.2	70-130		%REC	1	10/12/2012 3:50:25 PM
Surr: 4-Bromofluorobenzene	90.4	70-130		%REC	1	10/12/2012 3:50:25 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	10/12/2012 3:50:25 PM
Surr: Toluene-d8	92.0	70-130		%REC	1	10/12/2012 3:50:25 PM

Qualifiers:

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

Anatek Labs, Inc.

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

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	121017006
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1210653
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	121017006-001	**Sampling Date**	10/10/2012	**Date/Time Received**	10/16/2012 1:11 PM
Client Sample ID	1210653-001D / SWMU 1-37 (0-0.5)			**Sampling Time**	5:00 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/24/2012	CRW	EPA 335.4	
%moisture	3.2	Percent		10/26/2012	CRW	%moisture	

Sample Number	121017006-002	**Sampling Date**	10/10/2012	**Date/Time Received**	10/16/2012 1:11 PM
Client Sample ID	1210653-002D / SWMU 1-37 (1.5-2)			**Sampling Time**	5:15 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/24/2012	CRW	EPA 335.4	
%moisture	10.9	Percent		10/26/2012	CRW	%moisture	

Sample Number	121017006-003	**Sampling Date**	10/10/2012	**Date/Time Received**	10/16/2012 1:11 PM
Client Sample ID	1210653-003D / SWMU 1-37 (8-8.5)			**Sampling Time**	5:30 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/24/2012	CRW	EPA 335.4	
%moisture	14.8	Percent		10/26/2012	CRW	%moisture	

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

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

Batch #: 121017006
Project Name: 1210653

Analytical Results Report

Sample Number 121017006-004 **Sampling Date** 10/10/2012 **Date/Time Received** 10/16/2012 1:11 PM
Client Sample ID 1210653-004D / SWMU 1-37 (8.5-9) **Sampling Time** 5:40 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/24/2012	CRW	EPA 335.4	
%moisture	19.9	Percent		10/26/2012	CRW	%moisture	

Sample Number 121017006-005 **Sampling Date** 10/10/2012 **Date/Time Received** 10/16/2012 1:11 PM
Client Sample ID 1210653-005D / SWMU 1-37 (12-13) **Sampling Time** 5:55 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/24/2012	CRW	EPA 335.4	
%moisture	24.2	Percent		10/26/2012	CRW	%moisture	

Sample Number 121017006-006 **Sampling Date** 10/10/2012 **Date/Time Received** 10/16/2012 1:11 PM
Client Sample ID 1210653-006D / SWMU 1-37 (13-14) **Sampling Time** 6:05 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/24/2012	CRW	EPA 335.4	
%moisture	17.4	Percent		10/26/2012	CRW	%moisture	

Anatek Labs, Inc.

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	121017006
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1210653
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	121017006-007	**Sampling Date**	10/10/2012	**Date/Time Received**	10/16/2012 1:11 PM
Client Sample ID	1210653-007D / SWMU 1-37 (17-18)			**Sampling Time**	6:20 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/24/2012	CRW	EPA 335.4	
%moisture	14.4	Percent		10/30/2012	CRW	%moisture	

Authorized Signature

John Coddington, Lab Manager

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210653**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4283**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4283**	RunNo: **6213**
Prep Date: **10/12/2012**	Analysis Date: **10/13/2012**	SeqNo: **179030** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.1		10.00		91.2	77.6	140			

Sample ID **LCS-4283**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4283**	RunNo: **6213**
Prep Date: **10/12/2012**	Analysis Date: **10/13/2012**	SeqNo: **179032** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	39	10	50.00	0	78.6	52.6	130			
Surr: DNOP	4.1		5.000		81.4	77.6	140			

Sample ID **1210653-001CMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **SWMU 1-37 (0-0.5')**	Batch ID: **4283**	RunNo: **6226**
Prep Date: **10/12/2012**	Analysis Date: **10/15/2012**	SeqNo: **179425** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	100	10	51.18	103.8	-4.05	57.2	146			S
Surr: DNOP	3.9		5.118		75.7	77.6	140			S

Sample ID **1210653-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **SWMU 1-37 (0-0.5')**	Batch ID: **4283**	RunNo: **6226**
Prep Date: **10/12/2012**	Analysis Date: **10/15/2012**	SeqNo: **179426** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	120	10	49.80	103.8	32.2	57.2	146	16.4	24.5	S
Surr: DNOP	4.2		4.980		84.5	77.6	140	0	0	

Sample ID **MB-4297**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4297**	RunNo: **6226**
Prep Date: **10/15/2012**	Analysis Date: **10/15/2012**	SeqNo: **179526** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.1		10.00		90.9	77.6	140			

Sample ID **LCS-4297**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4297**	RunNo: **6226**
Prep Date: **10/15/2012**	Analysis Date: **10/15/2012**	SeqNo: **179527** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		89.5	77.6	140			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210653**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178737** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		103	84	116			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178738** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	114	74	117			
Surr: BFB	1100		1000		111	84	116			

Sample ID **1210582-004BMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178751** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	7.2	5.0	18.26	0	39.3	70	130			S
BFB	780		730.5		107	84	116			

Sample ID **1210582-004BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178752** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	16	5.0	18.26	0	87.4	70	130	76.0	22.1	R
Surr: BFB	800		730.5		109	84	116	0	0	

Sample ID **B27**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178761** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		105	84	116			

Sample ID **2.5UG GRO LCS-II**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/13/2012**	SeqNo: **178762** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	74	117			
Surr: BFB	1100		1000		112	84	116			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210653**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210653-005BMS**	SampType: **MS**			TestCode: **EPA Method 8015B: Gasoline Range**					
Client ID: **SWMU 1-37 (12-13')**	Batch ID: **R6205**			RunNo: **6205**					
Prep Date:	Analysis Date: **10/12/2012**			SeqNo: **178768**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	102	70	130			
Surr: BFB	1100		1000		113	84	116			

Sample ID **1210653-005BMSD**	SampType: **MSD**			TestCode: **EPA Method 8015B: Gasoline Range**					
Client ID: **SWMU 1-37 (12-13')**	Batch ID: **R6205**			RunNo: **6205**					
Prep Date:	Analysis Date: **10/12/2012**			SeqNo: **178769**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	70	130	7.96	22.1	
Surr: BFB	1200		1000		117	84	116	0	0	S

Sample ID **MB-4282**	SampType: **MBLK**			TestCode: **EPA Method 8015B: Gasoline Range**					
Client ID: **PBS**	Batch ID: **4282**			RunNo: **6371**					
Prep Date: **10/12/2012**	Analysis Date: **10/19/2012**			SeqNo: **183155**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.4	84	116			

Sample ID **LCS-4282**	SampType: **LCS**			TestCode: **EPA Method 8015B: Gasoline Range**					
Client ID: **LCSS**	Batch ID: **4282**			RunNo: **6371**					
Prep Date: **10/12/2012**	Analysis Date: **10/19/2012**			SeqNo: **183156**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.8	74	117			
Surr: BFB	960		1000		96.4	84	116			

Sample ID **1210668-001AMS**	SampType: **MS**			TestCode: **EPA Method 8015B: Gasoline Range**					
Client ID: **BatchQC**	Batch ID: **4282**			RunNo: **6371**					
Prep Date: **10/12/2012**	Analysis Date: **10/19/2012**			SeqNo: **183162**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	24	23.63	6.612	71.0	70	130			
Surr: BFB	4500		4726		96.1	84	116			

Sample ID **1210668-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015B: Gasoline Range**					
Client ID: **BatchQC**	Batch ID: **4282**			RunNo: **6371**					
Prep Date: **10/12/2012**	Analysis Date: **10/19/2012**			SeqNo: **183163**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	24	23.61	6.612	65.0	70	130	0	22.1	S
Surr: BFB	4300		4721		90.4	84	116	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210653**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4280**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4280**	RunNo: **6223**
Prep Date: **10/12/2012**	Analysis Date: **10/12/2012**	SeqNo: **179318** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
Naphthalene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Br[illegible]omethane	ND	0.00100								
[illegible]one	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								

Qualifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210653**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4280**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4280**	RunNo: **6223**
Prep Date: **10/12/2012**	Analysis Date: **10/12/2012**	SeqNo: **179318** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	45.9		50.00		91.9	70	130			
Surr: 4-Bromofluorobenzene	46.6		50.00		93.3	70	130			
Surr: Dibromofluoromethane	49.4		50.00		98.8	70	130			
Surr: Toluene-d8	46.4		50.00		92.9	70	130			

Sample ID **lcs-4280**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4280**	RunNo: **6223**
Prep Date: **10/12/2012**	Analysis Date: **10/12/2012**	SeqNo: **180404** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	12.3	1.00	12.50	0	98.3	60	140			
Toluene	11.6	1.00	12.50	0	93.2	60	140			
Chlorobenzene	12.4	1.00	12.50	0	99.5	60	140			
1,1-Dichloroethene	13.9	1.00	12.50	0	111	60	140			
Trichloroethene (TCE)	10.5	1.00	12.50	0	84.3	60	140			
Surr: 1,2-Dichloroethane-d4	46.0		50.00		92.0	70	130			
Surr: 4-Bromofluorobenzene	46.6		50.00		93.2	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210653**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	**lcs-4280**	SampType: **LCS**		TestCode: **Method 8260B/5035LOW: VOLATILES**					
Client ID:	**LCSS**	Batch ID: **4280**		RunNo: **6223**					
Prep Date:	**10/12/2012**	Analysis Date: **10/12/2012**		SeqNo: **180404**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	46.9		50.00		93.9	70	130			
Surr: Toluene-d8	42.8		50.00		85.7	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210653**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4304**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4304**	RunNo: **6287**
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **181172** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210653**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4304**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4304**	RunNo: **6287**
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **181172** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
[illegible]niline	ND	0.40								
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.3		3.330		99.2	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.670		87.3	20	131			
Surr: 2-Fluorophenol	2.9		3.330		86.6	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		77.7	25.1	149			
Surr: Nitrobenzene-d5	1.4		1.670		86.0	25.6	137			
Surr: Phenol-d5	2.8		3.330		85.1	20.3	132			

Sample ID **lcs-4304**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4304**	RunNo: **6287**
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **181173** Units: **mg/Kg**

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

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210653**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4304** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS** Batch ID: **4304** RunNo: **6287**

Prep Date: **10/15/2012** Analysis Date: **10/16/2012** SeqNo: **181173** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.5	0.20	1.670	0	87.0	49.7	98.1			
4-Chloro-3-methylphenol	2.8	0.50	3.330	0	83.9	43.8	89.1			
2-Chlorophenol	2.3	0.20	3.330	0	70.1	41.1	96.9			
1,4-Dichlorobenzene	1.2	0.20	1.670	0	70.8	41	97.4			
2,4-Dinitrotoluene	1.8	0.50	1.670	0	107	44.4	104			S
N-Nitrosodi-n-propylamine	1.4	0.20	1.670	0	84.8	39.1	86.9			
4-Nitrophenol	2.9	0.25	3.330	0	87.7	44.2	107			
Pentachlorophenol	2.1	0.40	3.330	0	62.0	36.2	80			
Phenol	2.5	0.20	3.330	0	76.4	42.7	92.7			
Pyrene	1.2	0.20	1.670	0	71.1	34.7	98.8			
1,2,4-Trichlorobenzene	1.3	0.20	1.670	0	79.0	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.3		3.330		98.8	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.670		89.8	20	131			
Surr: 2-Fluorophenol	2.5		3.330		75.9	11.9	130			
Surr: 4-Terphenyl-d14	1.2		1.670		74.2	25.1	149			
Surr: Nitrobenzene-d5	1.5		1.670		90.6	25.6	137			
Surr: Phenol-d5	2.8		3.330		84.9	20.3	132			

Sample ID **mb-4337** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **PBS** Batch ID: **4337** RunNo: **6376**

Prep Date: **10/16/2012** Analysis Date: **10/21/2012** SeqNo: **183352** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	3.2		3.330		95.0	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.670		88.8	20	131			
Surr: 2-Fluorophenol	2.5		3.330		75.7	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		76.8	25.1	149			
Surr: Nitrobenzene-d5	1.4		1.670		84.4	25.6	137			
Surr: Phenol-d5	2.6		3.330		78.4	20.3	132			

Sample ID **lcs-4337** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS** Batch ID: **4337** RunNo: **6376**

Prep Date: **10/16/2012** Analysis Date: **10/21/2012** SeqNo: **183353** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	3.4		3.330		102	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.670		89.9	20	131			
Surr: 2-Fluorophenol	2.4		3.330		71.3	11.9	130			
Surr: 4-Terphenyl-d14	1.4		1.670		85.9	25.1	149			
Surr: Nitrobenzene-d5	1.6		1.670		93.1	25.6	137			
Surr: Phenol-d5	2.9		3.330		86.8	20.3	132			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210653**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210653-001CMS** SampType: **MS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **SWMU 1-37 (0-0.5')** Batch ID: **4304** RunNo: **6376**

Prep Date: **10/15/2012** Analysis Date: **10/21/2012** SeqNo: **183387** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.40	1.664	0	74.7	25.6	142			
4-Chloro-3-methylphenol	2.6	1.0	3.318	0	78.7	63.7	100			
2-Chlorophenol	2.4	0.40	3.318	0	73.0	22.2	126			
1,4-Dichlorobenzene	1.1	0.40	1.664	0	69.0	12.4	115			
2,4-Dinitrotoluene	1.3	1.0	1.664	0	78.8	14.9	142			
N-Nitrosodi-n-propylamine	1.4	0.40	1.664	0	81.4	13.9	136			
4-Nitrophenol	2.4	0.50	3.318	0	73.6	36.7	130			
Pentachlorophenol	2.2	0.80	3.318	0	66.4	15.8	113			
Phenol	2.5	0.40	3.318	0	73.9	25.1	124			
Pyrene	1.5	0.40	1.664	0	88.1	35.8	124			
1,2,4-Trichlorobenzene	1.4	0.40	1.664	0	82.7	30	113			
Surr: 2,4,6-Tribromophenol	3.3		3.318		101	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.664		94.0	20	131			
Surr: 2-Fluorophenol	2.9		3.318		88.7	11.9	130			
Surr: 4-Terphenyl-d14	1.5		1.664		91.7	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.664		103	25.6	137			
Surr: Phenol-d5	3.2		3.318		97.8	20.3	132			

Sample ID **1210692-010CMS** SampType: **MS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **BatchQC** Batch ID: **4337** RunNo: **6376**

Prep Date: **10/16/2012** Analysis Date: **10/21/2012** SeqNo: **183388** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	3.3		3.350		97.8	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.680		94.5	20	131			
Surr: 2-Fluorophenol	2.7		3.350		79.9	11.9	130			
Surr: 4-Terphenyl-d14	1.4		1.680		83.3	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.680		104	25.6	137			
Surr: Phenol-d5	3.1		3.350		93.0	20.3	132			

Sample ID **1210653-001CMSD** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **SWMU 1-37 (0-0.5')** Batch ID: **4304** RunNo: **6376**

Prep Date: **10/15/2012** Analysis Date: **10/21/2012** SeqNo: **183389** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.3	0.40	1.672	0	75.2	25.6	142	1.09	22	
4-Chloro-3-methylphenol	2.4	1.0	3.334	0	73.0	63.7	100	7.05	27.3	
2-Chlorophenol	2.3	0.40	3.334	0	67.8	22.2	126	6.86	26.3	
1,4-Dichlorobenzene	1.0	0.40	1.672	0	61.9	12.4	115	10.4	27.4	
2,4-Dinitrotoluene	1.3	1.0	1.672	0	77.2	14.9	142	1.50	27.4	
N-Nitrosodi-n-propylamine	1.3	0.40	1.672	0	75.4	13.9	136	7.14	22.6	
4-Nitrophenol	2.4	0.50	3.334	0	73.4	36.7	130	0.281	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210653**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210653-001CMSD** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **SWMU 1-37 (0-0.5')** Batch ID: **4304** RunNo: **6376**

Prep Date: **10/15/2012** Analysis Date: **10/21/2012** SeqNo: **183389** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Pentachlorophenol	2.2	0.80	3.334	0	66.2	15.8	113	0.258	27.1	
Phenol	2.1	0.40	3.334	0	62.9	25.1	124	15.6	32.2	
Pyrene	1.3	0.40	1.672	0	79.2	35.8	124	10.1	29.5	
1,2,4-Trichlorobenzene	1.3	0.40	1.672	0	80.6	30	113	2.14	27.8	
Surr: 2,4,6-Tribromophenol	3.1		3.334		92.3	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.5		1.672		87.3	20	131	0	0	
Surr: 2-Fluorophenol	2.8		3.334		83.7	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.4		1.672		84.8	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.5		1.672		91.5	25.6	137	0	0	
Surr: Phenol-d5	3.0		3.334		88.5	20.3	132	0	0	

Sample ID **1210692-010CMSD** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **BatchQC** Batch ID: **4337** RunNo: **6376**

Prep Date: **10/16/2012** Analysis Date: **10/21/2012** SeqNo: **183390** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	3.2		3.332		97.1	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.6		1.671		98.0	20	131	0	0	
Surr: 2-Fluorophenol	2.6		3.332		76.9	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.3		1.671		78.6	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.7		1.671		101	25.6	137	0	0	
Surr: Phenol-d5	3.0		3.332		89.3	20.3	132	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210653**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	**MB-4317**	SampType: **mblk**		TestCode: **EPA Method 7471: Mercury**					
Client ID:	**PBS**	Batch ID: **4317**		RunNo: **6270**					
Prep Date:	**10/15/2012**	Analysis Date: **10/16/2012**		SeqNo: **180708**		Units: **mg/kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	**LCS-4317**	SampType: **lcs**		TestCode: **EPA Method 7471: Mercury**					
Client ID:	**LCSS**	Batch ID: **4317**		RunNo: **6270**					
Prep Date:	**10/15/2012**	Analysis Date: **10/16/2012**		SeqNo: **180709**		Units: **mg/kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1667	0	98.7	80	120			

Sample ID	**1210656-004CMS**	SampType: **ms**		TestCode: **EPA Method 7471: Mercury**					
Client ID:	**BatchQC**	Batch ID: **4317**		RunNo: **6270**					
Prep Date:	**10/15/2012**	Analysis Date: **10/16/2012**		SeqNo: **180735**		Units: **mg/kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1654	0	96.4	75	125			

Sample ID	**1210656-004CMSD**	SampType: **msd**		TestCode: **EPA Method 7471: Mercury**					
Client ID:	**BatchQC**	Batch ID: **4317**		RunNo: **6270**					
Prep Date:	**10/15/2012**	Analysis Date: **10/16/2012**		SeqNo: **180736**		Units: **mg/kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1655	0	96.8	75	125	0.493	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210653**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4440**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **4440**	RunNo: **6493**
Prep Date: **10/22/2012**	Analysis Date: **10/25/2012**	SeqNo: **186820** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	0.64	0.25								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID **LCS-4440**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **4440**	RunNo: **6493**
Prep Date: **10/22/2012**	Analysis Date: **10/25/2012**	SeqNo: **186821** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	25	2.5	25.00	0.6605	96.6	80	120			
Arsenic	25	2.5	25.00	0	102	80	120			
Barium	25	0.10	25.00	0	98.6	80	120			
Beryllium	26	0.15	25.00	0	103	80	120			
Cadmium	25	0.10	25.00	0	98.8	80	120			
Chromium	25	0.30	25.00	0	99.0	80	120			
Cobalt	24	0.30	25.00	0	95.6	80	120			
Lead	24	0.25	25.00	0	96.6	80	120			
Manganese	24	0.10	25.00	0.05400	96.6	80	120			
Nickel	24	0.50	25.00	0	94.2	80	120			
Selenium	24	2.5	25.00	0	94.1	80	120			
Silver	6.0	0.25	5.000	0.6425	106	80	120			B
Vanadium	25	2.5	25.00	0	102	80	120			
Zinc	24	2.5	25.00	0	97.3	80	120			

Sample ID **1210771-001AMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC**	Batch ID: **4440**	RunNo: **6493**
Prep Date: **10/22/2012**	Analysis Date: **10/25/2012**	SeqNo: **186845** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	23	2.5	24.93	2.265	83.0	75	125			
Cadmium	20	0.10	24.93	0.03505	80.0	75	125			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210653**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	1210771-001AMS	SampType:	MS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	BatchQC	Batch ID:	4440		RunNo:	6493				
Prep Date:	10/22/2012	Analysis Date:	10/25/2012		SeqNo:	186845	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	25	0.30	24.93	3.270	86.6	75	125			
Selenium	17	2.5	24.93	0	68.1	75	125			S

Sample ID	1210771-001AMSD	SampType:	MSD		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	BatchQC	Batch ID:	4440		RunNo:	6493				
Prep Date:	10/22/2012	Analysis Date:	10/25/2012		SeqNo:	186849	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	23	2.5	24.96	2.265	81.7	75	125	1.34	20	
Cadmium	19	0.10	24.96	0.03505	77.2	75	125	3.39	20	
Chromium	24	0.30	24.96	3.270	84.2	75	125	2.39	20	
Selenium	15	2.5	24.96	0	61.4	75	125	10.1	20	S

Sample ID	MB-4440	SampType:	MBLK		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS	Batch ID:	4440		RunNo:	6546				
Prep Date:	10/22/2012	Analysis Date:	10/29/2012		SeqNo:	188992	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	ND	0.25								

Sample ID	LCS-4440	SampType:	LCS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	LCSS	Batch ID:	4440		RunNo:	6546				
Prep Date:	10/22/2012	Analysis Date:	10/29/2012		SeqNo:	188993	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	5.7	0.25	5.000	0	113	80	120			

Sample ID	1210771-001AMS	SampType:	MS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	BatchQC	Batch ID:	4440		RunNo:	6546				
Prep Date:	10/22/2012	Analysis Date:	10/29/2012		SeqNo:	189043	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	4.3	0.25	4.987	0	85.5	75	125			

Sample ID	1210771-001AMSD	SampType:	MSD		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	BatchQC	Batch ID:	4440		RunNo:	6546				
Prep Date:	10/22/2012	Analysis Date:	10/29/2012		SeqNo:	189044	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	4.0	0.25	4.992	0	80.9	75	125	5.39	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210653**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	**MB-4440**	SampType:	**MBLK**	TestCode:	**EPA Method 6010B: Soil Metals**					
Client ID:	**PBS**	Batch ID:	**4440**	RunNo:	**6670**					
Prep Date:	**10/22/2012**	Analysis Date:	**11/2/2012**	SeqNo:	**192431**	Units:	**mg/Kg**			

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

Sample ID	**LCS-4440**	SampType:	**LCS**	TestCode:	**EPA Method 6010B: Soil Metals**					
Client ID:	**LCSS**	Batch ID:	**4440**	RunNo:	**6670**					
Prep Date:	**10/22/2012**	Analysis Date:	**11/2/2012**	SeqNo:	**192432**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	27	1.0	25.00	0	109	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1210653**

Received by/date: 10/12/12

Logged By: **Michelle Garcia** 10/12/2012 8:00:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 10/12/2012 9:20:33 AM Michelle Garcia

Reviewed By: 10/12/12

Chain of Custody

1. Were seals intact?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	FedEx		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH:
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	(<2 or >12 unless noted)
15. Is it clear what analyses were requested?	Yes ☑	No ☐	Adjusted?
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. **Cooler Information**

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

Chain-of-Custody Record

Client: WESTERN REFINING SW INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
X Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
X EDD (Type) EXCEL

Turn-Around Time:
X Standard ☐ Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: Yes / No
Sample Temperature: 1.0

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210155	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/10/12	1700	SOIL	SWMU 1-37 (0-0.5')	2 VIALS	SOBI	-001										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1715		SWMU 1-37 (1.5-2')	2 VIALS	SOBI	-002										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1730		SWMU 1-37 (8-8.5')	2 VIALS	SOBI	-003										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1740		SWMU 1-37 (8.5-9')	2 VIALS	SOBI	-004										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			

Date: 10/11/12 Time: 0735 Relinquished by: — Received by: Michelle Garcia Date: 10/12/12 Time: 0800
Date: Time: Relinquished by: Received by: Date: Time:

Remarks:

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

Chain-of-Custody Record

Client: WESTERN REFINING SW INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: ☐ No
Sample Temperature: 7.0

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/10/12	1755	SOIL	SWMU 1-37(12-13')	2 VIALS	SOB1	-005										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1805		SWMU 1-37(13-14')	2 VIALS	SOB1	-006										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1820		SWMU 1-37(17-18')	2 VIALS	SOB1	-007										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			

Date	Time	Relinquished by:	Received by:	Date	Time
10/11/12	0735		Mitchell Gomez	10/12/12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

Rpt	T	Analyte	Units	Synonym	MDL	LOD	LOQ
☐	A	Aluminum	mg/Kg		0.4481	0	
☑	A	Antimony	mg/Kg		0.629	0	
☑	A	Arsenic	mg/Kg		0.6263	0	
☑	A	Barium	mg/Kg		0.0609	0	
☑	A	Beryllium	mg/Kg		0.0093	0	
☐	A	Boron	mg/Kg		0.0826	0	
☑	A	Cadmium	mg/Kg		0.0271	0	
☐	A	Calcium	mg/Kg		6.9713	0	
☑	A	Chromium	mg/Kg		0.1184	0	
☑	A	Cobalt	mg/Kg		0.0689	0	
☐	A	Copper	mg/Kg		0.2323	0	
☑	A	Iron	mg/Kg		0.7476	0	
☑	A	Lead	mg/Kg		0.2194	0	
☐	A	Magnesium	mg/Kg		0.4651	0	
☑	A	Manganese	mg/Kg		0.0212	0	
☐	A	Molybdenum	mg/Kg		0.1423	0	
☑	A	Nickel	mg/Kg		0.1668	0	
☐	A	Potassium	mg/Kg		17.3925	0	
☑	A	Selenium	mg/Kg		1.4025	0	
☑	A	Silver	mg/Kg		0.0354	0	
☐	A	Sodium	mg/Kg		8.4278	0	
☐	A	Thallium	mg/Kg		1.1557	0	
☐	A	Tin	mg/Kg		0.8261	0	
☐	A	Titanium	mg/Kg		0.0342	0	
☐	A	Uranium	mg/Kg		0.7296	0	
☑	A	Vanadium	mg/Kg		0.0565	0	
☑	A	Zinc	mg/Kg		1.0066	0	
☐	I	Yttrium	%		0	0	
☐	I	Yttrium Radial	%		0	0	
☐	X	Uranium-confirmation	mg/Kg		0	0	
☐	X	Silicon	mg/Kg		0	0	

+ Hg
+ Cn

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

November 19, 2012

Scott Crouch
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.1 OrderNo.: 1210660

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 4 sample(s) on 10/12/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1210660**
Date Reported: **11/19/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210660-001 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-24 GW
Collection Date: 10/10/2012 10:15:00 AM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	1.9	1.0		mg/L	1	10/12/2012 5:00:43 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/12/2012 5:00:43 PM
Surr: DNOP	114	79.5-166		%REC	1	10/12/2012 5:00:43 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	13	0.50	*	mg/L	5	10/13/2012 8:47:09 PM
Chloride	1500	100		mg/L	200	10/16/2012 10:15:00 PM
Sulfate	110	2.5		mg/L	5	10/13/2012 8:47:09 PM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	17	0.080	*	mg/L	20	10/23/2012 1:08:09 PM
Beryllium	0.032	0.0040	*	mg/L	1	10/19/2012 8:36:07 PM
Cadmium	ND	0.0040		mg/L	1	10/19/2012 8:36:07 PM
Chromium	0.14	0.012	*	mg/L	1	10/19/2012 8:36:07 PM
Cobalt	0.11	0.012		mg/L	1	10/19/2012 8:36:07 PM
Iron	160	4.0	*	mg/L	100	10/23/2012 1:11:21 PM
Manganese	43	0.40	*	mg/L	100	10/23/2012 1:11:21 PM
Nickel	0.21	0.020	*	mg/L	1	10/19/2012 8:36:07 PM
Silver	ND	0.010		mg/L	1	10/19/2012 8:36:07 PM
Vanadium	0.20	0.10		mg/L	1	10/19/2012 8:36:07 PM
Zinc	0.27	0.020		mg/L	1	10/19/2012 8:36:07 PM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0050		mg/L	2.5	10/24/2012 4:54:26 PM
Arsenic	0.052	0.0050	*	mg/L	2.5	10/24/2012 4:54:26 PM
Lead	0.49	0.010	*	mg/L	5	10/25/2012 11:03:24 AM
Selenium	0.023	0.0050		mg/L	2.5	11/12/2012 7:32:44 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	0.00022	0.00020		mg/L	1	10/24/2012 7:30:13 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Acenaphthylene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Aniline	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Anthracene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Azobenzene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Benz(a)anthracene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Benzoic acid	ND	20		µg/L	1	10/16/2012 3:23:26 PM
Benzyl alcohol	ND	10		µg/L	1	10/16/2012 3:23:26 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210660-001 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-24 GW
Collection Date: 10/10/2012 10:15:00 AM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/16/2012 3:23:26 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Carbazole	ND	10		µg/L	1	10/16/2012 3:23:26 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/16/2012 3:23:26 PM
4-Chloroaniline	ND	10		µg/L	1	10/16/2012 3:23:26 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
2-Chlorophenol	ND	10		µg/L	1	10/16/2012 3:23:26 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Chrysene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Di-n-octyl phthalate	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Dibenzofuran	ND	10		µg/L	1	10/16/2012 3:23:26 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Diethyl phthalate	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Dimethyl phthalate	ND	10		µg/L	1	10/16/2012 3:23:26 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/16/2012 3:23:26 PM
2,4-Dimethylphenol	230	10		µg/L	1	10/16/2012 3:23:26 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/16/2012 3:23:26 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/16/2012 3:23:26 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Fluoranthene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Fluorene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Hexachlorobenzene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Hexachloroethane	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Isophorone	ND	10		µg/L	1	10/16/2012 3:23:26 PM
1-Methylnaphthalene	10	10		µg/L	1	10/16/2012 3:23:26 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
2-Methylphenol	ND	10		µg/L	1	10/16/2012 3:23:26 PM
3+4-Methylphenol	ND	10		µg/L	1	10/16/2012 3:23:26 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/16/2012 3:23:26 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210660-001 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-24 GW
Collection Date: 10/10/2012 10:15:00 AM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
N-Nitrosodimethylamine	ND	10		µg/L	1	10/16/2012 3:23:26 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Naphthalene	11	10		µg/L	1	10/16/2012 3:23:26 PM
2-Nitroaniline	ND	10		µg/L	1	10/16/2012 3:23:26 PM
3-Nitroaniline	ND	10		µg/L	1	10/16/2012 3:23:26 PM
4-Nitroaniline	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Nitrobenzene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
2-Nitrophenol	ND	10		µg/L	1	10/16/2012 3:23:26 PM
4-Nitrophenol	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Pentachlorophenol	ND	20		µg/L	1	10/16/2012 3:23:26 PM
Phenanthrene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Phenol	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Pyrene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Pyridine	ND	10		µg/L	1	10/16/2012 3:23:26 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/16/2012 3:23:26 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/16/2012 3:23:26 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/16/2012 3:23:26 PM
Surr: 2,4,6-Tribromophenol	81.9	44.2-126		%REC	1	10/16/2012 3:23:26 PM
Surr: 2-Fluorobiphenyl	69.7	37-114		%REC	1	10/16/2012 3:23:26 PM
Surr: 2-Fluorophenol	55.0	23.4-98		%REC	1	10/16/2012 3:23:26 PM
Surr: 4-Terphenyl-d14	68.1	41.3-116		%REC	1	10/16/2012 3:23:26 PM
Surr: Nitrobenzene-d5	74.1	39.5-118		%REC	1	10/16/2012 3:23:26 PM
Surr: Phenol-d5	49.5	20.9-95.9		%REC	1	10/16/2012 3:23:26 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	20	5.0		µg/L	5	10/17/2012 8:29:42 PM
Toluene	18	5.0		µg/L	5	10/17/2012 8:29:42 PM
Ethylbenzene	8.9	5.0		µg/L	5	10/17/2012 8:29:42 PM
Methyl tert-butyl ether (MTBE)	65	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,2,4-Trimethylbenzene	15	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
Naphthalene	22	10		µg/L	5	10/17/2012 8:29:42 PM
1-Methylnaphthalene	ND	20		µg/L	5	10/17/2012 8:29:42 PM
2-Methylnaphthalene	ND	20		µg/L	5	10/17/2012 8:29:42 PM
Acetone	52	50		µg/L	5	10/17/2012 8:29:42 PM
Bromobenzene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
Bromodichloromethane	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
Bromoform	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
Bromomethane	ND	15		µg/L	5	10/17/2012 8:29:42 PM
2-Butanone	ND	50		µg/L	5	10/17/2012 8:29:42 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-24 GW
Project: SWMU NO.1
Collection Date: 10/10/2012 10:15:00 AM
Lab ID: 1210660-001
Matrix: AQUEOUS
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Carbon disulfide	ND	50		µg/L	5	10/17/2012 8:29:42 PM
Carbon Tetrachloride	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
Chlorobenzene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
Chloroethane	ND	10		µg/L	5	10/17/2012 8:29:42 PM
Chloroform	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
Chloromethane	ND	15		µg/L	5	10/17/2012 8:29:42 PM
2-Chlorotoluene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
4-Chlorotoluene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
cis-1,2-DCE	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	10/17/2012 8:29:42 PM
Dibromochloromethane	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
Dibromomethane	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
Dichlorodifluoromethane	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,1-Dichloroethane	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,1-Dichloroethene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,2-Dichloropropane	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
2,2-Dichloropropane	ND	10		µg/L	5	10/17/2012 8:29:42 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
Hexachlorobutadiene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
2-Hexanone	ND	50		µg/L	5	10/17/2012 8:29:42 PM
Isopropylbenzene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	10/17/2012 8:29:42 PM
Methylene Chloride	ND	15		µg/L	5	10/17/2012 8:29:42 PM
n-Butylbenzene	ND	15		µg/L	5	10/17/2012 8:29:42 PM
n-Propylbenzene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
sec-Butylbenzene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
Styrene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
tert-Butylbenzene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	10/17/2012 8:29:42 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
trans-1,2-DCE	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-24 GW
Project: SWMU NO.1
Collection Date: 10/10/2012 10:15:00 AM
Lab ID: 1210660-001 **Matrix:** AQUEOUS **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1,2-Trichloroethane	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
Trichloroethene (TCE)	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
Trichlorofluoromethane	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	10/17/2012 8:29:42 PM
Vinyl chloride	ND	5.0		µg/L	5	10/17/2012 8:29:42 PM
Xylenes, Total	38	7.5		µg/L	5	10/17/2012 8:29:42 PM
Surr: 1,2-Dichloroethane-d4	90.2	70-130		%REC	5	10/17/2012 8:29:42 PM
Surr: 4-Bromofluorobenzene	98.3	70-130		%REC	5	10/17/2012 8:29:42 PM
Surr: Dibromofluoromethane	93.5	70-130		%REC	5	10/17/2012 8:29:42 PM
Surr: Toluene-d8	93.9	70-130		%REC	5	10/17/2012 8:29:42 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	1.9	0.25		mg/L	5	10/20/2012 4:11:59 PM
Surr: BFB	94.0	70-130		%REC	5	10/20/2012 4:11:59 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210660-002 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-24 GW DUP
Collection Date: 10/10/2012 10:15:00 AM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	1.9	1.0		mg/L	1	10/12/2012 5:25:56 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/12/2012 5:25:56 PM
Surr: DNOP	113	79.5-166		%REC	1	10/12/2012 5:25:56 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	13	0.50	*	mg/L	5	10/13/2012 9:11:58 PM
Chloride	1500	100		mg/L	200	10/16/2012 10:27:24 PM
Sulfate	100	2.5		mg/L	5	10/13/2012 9:11:58 PM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	20	0.080	*	mg/L	20	10/23/2012 1:26:06 PM
Beryllium	0.032	0.0040	*	mg/L	1	10/19/2012 8:55:06 PM
Cadmium	ND	0.0040		mg/L	1	10/19/2012 8:55:06 PM
Chromium	0.16	0.012	*	mg/L	1	10/19/2012 8:55:06 PM
Cobalt	0.11	0.012		mg/L	1	10/19/2012 8:55:06 PM
Iron	180	4.0	*	mg/L	100	10/23/2012 1:29:50 PM
Manganese	39	0.080	*	mg/L	20	10/23/2012 1:26:06 PM
Nickel	0.21	0.020	*	mg/L	1	10/19/2012 8:55:06 PM
Silver	ND	0.010		mg/L	1	10/19/2012 8:55:06 PM
Vanadium	0.18	0.10		mg/L	1	10/19/2012 8:55:06 PM
Zinc	0.28	0.020		mg/L	1	10/19/2012 8:55:06 PM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0050		mg/L	2.5	10/24/2012 4:58:22 PM
Arsenic	0.058	0.0050	*	mg/L	2.5	10/24/2012 4:58:22 PM
Lead	0.55	0.020	*	mg/L	10	10/25/2012 11:23:04 AM
Selenium	0.020	0.0050		mg/L	2.5	11/12/2012 7:34:36 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	0.00027	0.00020		mg/L	1	10/24/2012 7:32:00 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Acenaphthylene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Aniline	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Anthracene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Azobenzene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Benz(a)anthracene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Benzoic acid	ND	20		µg/L	1	10/16/2012 3:53:35 PM
Benzyl alcohol	ND	10		µg/L	1	10/16/2012 3:53:35 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210660-002 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-24 GW DUP
Collection Date: 10/10/2012 10:15:00 AM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/16/2012 3:53:35 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Carbazole	ND	10		µg/L	1	10/16/2012 3:53:35 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/16/2012 3:53:35 PM
4-Chloroaniline	ND	10		µg/L	1	10/16/2012 3:53:35 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
2-Chlorophenol	ND	10		µg/L	1	10/16/2012 3:53:35 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Chrysene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Di-n-butyl phthalate	11	10		µg/L	1	10/16/2012 3:53:35 PM
Di-n-octyl phthalate	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Dibenzofuran	ND	10		µg/L	1	10/16/2012 3:53:35 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Diethyl phthalate	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Dimethyl phthalate	ND	10		µg/L	1	10/16/2012 3:53:35 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/16/2012 3:53:35 PM
2,4-Dimethylphenol	260	20		µg/L	2	10/20/2012 9:06:37 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/16/2012 3:53:35 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/16/2012 3:53:35 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Fluoranthene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Fluorene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Hexachlorobenzene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Hexachloroethane	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Isophorone	ND	10		µg/L	1	10/16/2012 3:53:35 PM
1-Methylnaphthalene	11	10		µg/L	1	10/16/2012 3:53:35 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
2-Methylphenol	ND	10		µg/L	1	10/16/2012 3:53:35 PM
3+4-Methylphenol	ND	10		µg/L	1	10/16/2012 3:53:35 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/16/2012 3:53:35 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-24 GW DUP
Project: SWMU NO.1
Collection Date: 10/10/2012 10:15:00 AM
Lab ID: 1210660-002 **Matrix:** AQUEOUS **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
N-Nitrosodimethylamine	ND	10		µg/L	1	10/16/2012 3:53:35 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Naphthalene	12	10		µg/L	1	10/16/2012 3:53:35 PM
2-Nitroaniline	ND	10		µg/L	1	10/16/2012 3:53:35 PM
3-Nitroaniline	ND	10		µg/L	1	10/16/2012 3:53:35 PM
4-Nitroaniline	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Nitrobenzene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
2-Nitrophenol	ND	10		µg/L	1	10/16/2012 3:53:35 PM
4-Nitrophenol	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Pentachlorophenol	ND	20		µg/L	1	10/16/2012 3:53:35 PM
Phenanthrene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Phenol	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Pyrene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Pyridine	ND	10		µg/L	1	10/16/2012 3:53:35 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/16/2012 3:53:35 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/16/2012 3:53:35 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/16/2012 3:53:35 PM
Surr: 2,4,6-Tribromophenol	83.7	44.2-126		%REC	1	10/16/2012 3:53:35 PM
Surr: 2-Fluorobiphenyl	75.7	37-114		%REC	1	10/16/2012 3:53:35 PM
Surr: 2-Fluorophenol	58.4	23.4-98		%REC	1	10/16/2012 3:53:35 PM
Surr: 4-Terphenyl-d14	64.7	41.3-116		%REC	1	10/16/2012 3:53:35 PM
Surr: Nitrobenzene-d5	75.9	39.5-118		%REC	1	10/16/2012 3:53:35 PM
Surr: Phenol-d5	49.8	20.9-95.9		%REC	1	10/16/2012 3:53:35 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	19	5.0		µg/L	5	10/17/2012 10:22:32 PM
Toluene	19	5.0		µg/L	5	10/17/2012 10:22:32 PM
Ethylbenzene	8.8	5.0		µg/L	5	10/17/2012 10:22:32 PM
Methyl tert-butyl ether (MTBE)	70	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,2,4-Trimethylbenzene	14	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
Naphthalene	21	10		µg/L	5	10/17/2012 10:22:32 PM
1-Methylnaphthalene	ND	20		µg/L	5	10/17/2012 10:22:32 PM
2-Methylnaphthalene	ND	20		µg/L	5	10/17/2012 10:22:32 PM
Acetone	64	50		µg/L	5	10/17/2012 10:22:32 PM
Bromobenzene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
Bromodichloromethane	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
Bromoform	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
Bromomethane	ND	15		µg/L	5	10/17/2012 10:22:32 PM
2-Butanone	ND	50		µg/L	5	10/17/2012 10:22:32 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-24 GW DUP
Project: SWMU NO.1
Collection Date: 10/10/2012 10:15:00 AM
Lab ID: 1210660-002 **Matrix:** AQUEOUS **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Carbon disulfide	ND	50		µg/L	5	10/17/2012 10:22:32 PM
Carbon Tetrachloride	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
Chlorobenzene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
Chloroethane	ND	10		µg/L	5	10/17/2012 10:22:32 PM
Chloroform	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
Chloromethane	ND	15		µg/L	5	10/17/2012 10:22:32 PM
2-Chlorotoluene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
4-Chlorotoluene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
cis-1,2-DCE	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	10/17/2012 10:22:32 PM
Dibromochloromethane	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
Dibromomethane	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
Dichlorodifluoromethane	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,1-Dichloroethane	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,1-Dichloroethene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,2-Dichloropropane	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
2,2-Dichloropropane	ND	10		µg/L	5	10/17/2012 10:22:32 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
Hexachlorobutadiene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
2-Hexanone	ND	50		µg/L	5	10/17/2012 10:22:32 PM
Isopropylbenzene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	10/17/2012 10:22:32 PM
Methylene Chloride	ND	15		µg/L	5	10/17/2012 10:22:32 PM
n-Butylbenzene	ND	15		µg/L	5	10/17/2012 10:22:32 PM
n-Propylbenzene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
sec-Butylbenzene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
Styrene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
tert-Butylbenzene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	10/17/2012 10:22:32 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
trans-1,2-DCE	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210660-002 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-24 GW DUP
Collection Date: 10/10/2012 10:15:00 AM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1,2-Trichloroethane	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
Trichloroethene (TCE)	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
Trichlorofluoromethane	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	10/17/2012 10:22:32 PM
Vinyl chloride	ND	5.0		µg/L	5	10/17/2012 10:22:32 PM
Xylenes, Total	36	7.5		µg/L	5	10/17/2012 10:22:32 PM
Surr: 1,2-Dichloroethane-d4	91.3	70-130		%REC	5	10/17/2012 10:22:32 PM
Surr: 4-Bromofluorobenzene	95.0	70-130		%REC	5	10/17/2012 10:22:32 PM
Surr: Dibromofluoromethane	91.6	70-130		%REC	5	10/17/2012 10:22:32 PM
Surr: Toluene-d8	94.4	70-130		%REC	5	10/17/2012 10:22:32 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	1.9	0.25		mg/L	5	10/20/2012 6:05:32 PM
Surr: BFB	98.6	70-130		%REC	5	10/20/2012 6:05:32 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: SWMU NO.1
Collection Date:
Lab ID: 1210660-003
Matrix: TRIP BLANK
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
Toluene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
Ethylbenzene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
Naphthalene	ND	2.0		µg/L	1	10/18/2012 12:15:16 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/18/2012 12:15:16 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/18/2012 12:15:16 AM
Acetone	ND	10		µg/L	1	10/18/2012 12:15:16 AM
Bromobenzene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
Bromodichloromethane	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
Bromoform	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
Bromomethane	ND	3.0		µg/L	1	10/18/2012 12:15:16 AM
2-Butanone	ND	10		µg/L	1	10/18/2012 12:15:16 AM
Carbon disulfide	ND	10		µg/L	1	10/18/2012 12:15:16 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
Chlorobenzene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
Chloroethane	ND	2.0		µg/L	1	10/18/2012 12:15:16 AM
Chloroform	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
Chloromethane	ND	3.0		µg/L	1	10/18/2012 12:15:16 AM
2-Chlorotoluene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
4-Chlorotoluene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
cis-1,2-DCE	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/18/2012 12:15:16 AM
Dibromochloromethane	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
Dibromomethane	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/18/2012 12:15:16 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
2-Hexanone	ND	10		µg/L	1	10/18/2012 12:15:16 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: SWMU NO.1
Collection Date:
Lab ID: 1210660-003
Matrix: TRIP BLANK
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Isopropylbenzene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/18/2012 12:15:16 AM
Methylene Chloride	ND	3.0		µg/L	1	10/18/2012 12:15:16 AM
n-Butylbenzene	ND	3.0		µg/L	1	10/18/2012 12:15:16 AM
n-Propylbenzene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
sec-Butylbenzene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
Styrene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
tert-Butylbenzene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/18/2012 12:15:16 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
trans-1,2-DCE	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/18/2012 12:15:16 AM
Vinyl chloride	ND	1.0		µg/L	1	10/18/2012 12:15:16 AM
Xylenes, Total	ND	1.5		µg/L	1	10/18/2012 12:15:16 AM
Surr: 1,2-Dichloroethane-d4	89.9	70-130		%REC	1	10/18/2012 12:15:16 AM
Surr: 4-Bromofluorobenzene	91.8	70-130		%REC	1	10/18/2012 12:15:16 AM
Surr: Dibromofluoromethane	93.5	70-130		%REC	1	10/18/2012 12:15:16 AM
Surr: Toluene-d8	96.3	70-130		%REC	1	10/18/2012 12:15:16 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/20/2012 7:02:36 PM
Surr: BFB	100	70-130		%REC	1	10/20/2012 7:02:36 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB101012
Project: SWMU NO.1
Collection Date: 10/10/2012 6:45:00 PM
Lab ID: 1210660-004 **Matrix:** AQUEOUS **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/12/2012 5:51:00 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/12/2012 5:51:00 PM
Surr: DNOP	112	79.5-166		%REC	1	10/12/2012 5:51:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	ND	0.10		mg/L	1	10/13/2012 8:22:19 PM
Chloride	ND	0.50		mg/L	1	10/13/2012 8:22:19 PM
Sulfate	ND	0.50		mg/L	1	10/13/2012 8:22:19 PM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	ND	0.0020		mg/L	1	10/17/2012 9:10:57 PM
Beryllium	ND	0.0020		mg/L	1	10/17/2012 9:10:57 PM
Cadmium	ND	0.0020		mg/L	1	10/17/2012 9:10:57 PM
Chromium	ND	0.0060		mg/L	1	10/17/2012 9:10:57 PM
Cobalt	ND	0.0060		mg/L	1	10/17/2012 9:10:57 PM
Iron	ND	0.020		mg/L	1	10/18/2012 2:03:15 PM
Manganese	ND	0.0020		mg/L	1	10/17/2012 9:10:57 PM
Nickel	ND	0.010		mg/L	1	10/17/2012 9:10:57 PM
Silver	ND	0.0050		mg/L	1	10/17/2012 9:10:57 PM
Vanadium	ND	0.050		mg/L	1	10/17/2012 9:10:57 PM
Zinc	ND	0.010		mg/L	1	10/17/2012 9:10:57 PM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0010		mg/L	1	10/25/2012 6:54:33 PM
Arsenic	ND	0.0010		mg/L	1	10/25/2012 6:54:33 PM
Lead	ND	0.0010		mg/L	1	10/25/2012 6:54:33 PM
Selenium	ND	0.0010		mg/L	1	10/25/2012 6:54:33 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	10/24/2012 7:33:46 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Acenaphthylene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Aniline	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Anthracene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Azobenzene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Benz(a)anthracene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Benzoic acid	ND	20		µg/L	1	10/16/2012 4:23:30 PM
Benzyl alcohol	ND	10		µg/L	1	10/16/2012 4:23:30 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB101012
Project: SWMU NO.1
Collection Date: 10/10/2012 6:45:00 PM
Lab ID: 1210660-004
Matrix: AQUEOUS
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/16/2012 4:23:30 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Carbazole	ND	10		µg/L	1	10/16/2012 4:23:30 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/16/2012 4:23:30 PM
4-Chloroaniline	ND	10		µg/L	1	10/16/2012 4:23:30 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
2-Chlorophenol	ND	10		µg/L	1	10/16/2012 4:23:30 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Chrysene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Di-n-octyl phthalate	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Dibenzofuran	ND	10		µg/L	1	10/16/2012 4:23:30 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Diethyl phthalate	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Dimethyl phthalate	ND	10		µg/L	1	10/16/2012 4:23:30 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/16/2012 4:23:30 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/16/2012 4:23:30 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/16/2012 4:23:30 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/16/2012 4:23:30 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Fluoranthene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Fluorene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Hexachlorobenzene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Hexachloroethane	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Isophorone	ND	10		µg/L	1	10/16/2012 4:23:30 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
2-Methylphenol	ND	10		µg/L	1	10/16/2012 4:23:30 PM
3+4-Methylphenol	ND	10		µg/L	1	10/16/2012 4:23:30 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/16/2012 4:23:30 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB101012
Project: SWMU NO.1
Collection Date: 10/10/2012 6:45:00 PM
Lab ID: 1210660-004
Matrix: AQUEOUS
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
N-Nitrosodimethylamine	ND	10		µg/L	1	10/16/2012 4:23:30 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Naphthalene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
2-Nitroaniline	ND	10		µg/L	1	10/16/2012 4:23:30 PM
3-Nitroaniline	ND	10		µg/L	1	10/16/2012 4:23:30 PM
4-Nitroaniline	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Nitrobenzene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
2-Nitrophenol	ND	10		µg/L	1	10/16/2012 4:23:30 PM
4-Nitrophenol	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Pentachlorophenol	ND	20		µg/L	1	10/16/2012 4:23:30 PM
Phenanthrene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Phenol	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Pyrene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Pyridine	ND	10		µg/L	1	10/16/2012 4:23:30 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/16/2012 4:23:30 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/16/2012 4:23:30 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/16/2012 4:23:30 PM
Surr: 2,4,6-Tribromophenol	83.9	44.2-126		%REC	1	10/16/2012 4:23:30 PM
Surr: 2-Fluorobiphenyl	67.2	37-114		%REC	1	10/16/2012 4:23:30 PM
Surr: 2-Fluorophenol	53.6	23.4-98		%REC	1	10/16/2012 4:23:30 PM
Surr: 4-Terphenyl-d14	73.0	41.3-116		%REC	1	10/16/2012 4:23:30 PM
Surr: Nitrobenzene-d5	76.8	39.5-118		%REC	1	10/16/2012 4:23:30 PM
Surr: Phenol-d5	44.7	20.9-95.9		%REC	1	10/16/2012 4:23:30 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
Toluene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
Ethylbenzene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
Naphthalene	ND	2.0		µg/L	1	10/18/2012 12:43:20 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/18/2012 12:43:20 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/18/2012 12:43:20 AM
Acetone	ND	10		µg/L	1	10/18/2012 12:43:20 AM
Bromobenzene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
Bromodichloromethane	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
Bromoform	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
Bromomethane	ND	3.0		µg/L	1	10/18/2012 12:43:20 AM
2-Butanone	ND	10		µg/L	1	10/18/2012 12:43:20 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB101012
Project: SWMU NO.1
Collection Date: 10/10/2012 6:45:00 PM
Lab ID: 1210660-004
Matrix: AQUEOUS
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Carbon disulfide	ND	10		µg/L	1	10/18/2012 12:43:20 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
Chlorobenzene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
Chloroethane	ND	2.0		µg/L	1	10/18/2012 12:43:20 AM
Chloroform	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
Chloromethane	ND	3.0		µg/L	1	10/18/2012 12:43:20 AM
2-Chlorotoluene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
4-Chlorotoluene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
cis-1,2-DCE	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/18/2012 12:43:20 AM
Dibromochloromethane	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
Dibromomethane	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/18/2012 12:43:20 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
2-Hexanone	ND	10		µg/L	1	10/18/2012 12:43:20 AM
Isopropylbenzene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/18/2012 12:43:20 AM
Methylene Chloride	ND	3.0		µg/L	1	10/18/2012 12:43:20 AM
n-Butylbenzene	ND	3.0		µg/L	1	10/18/2012 12:43:20 AM
n-Propylbenzene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
sec-Butylbenzene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
Styrene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
tert-Butylbenzene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/18/2012 12:43:20 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
trans-1,2-DCE	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB101012
Project: SWMU NO.1
Collection Date: 10/10/2012 6:45:00 PM
Lab ID: 1210660-004 **Matrix:** AQUEOUS **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/18/2012 12:43:20 AM
Vinyl chloride	ND	1.0		µg/L	1	10/18/2012 12:43:20 AM
Xylenes, Total	ND	1.5		µg/L	1	10/18/2012 12:43:20 AM
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%REC	1	10/18/2012 12:43:20 AM
Surr: 4-Bromofluorobenzene	93.4	70-130		%REC	1	10/18/2012 12:43:20 AM
Surr: Dibromofluoromethane	92.4	70-130		%REC	1	10/18/2012 12:43:20 AM
Surr: Toluene-d8	95.0	70-130		%REC	1	10/18/2012 12:43:20 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/20/2012 7:30:51 PM
Surr: BFB	95.6	70-130		%REC	1	10/20/2012 7:30:51 PM

Qualifiers:

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

Anatek Labs, Inc.

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

Batch #: 121016063
Project Name: 1210660

Analytical Results Report

Sample Number 121016063-001 **Sampling Date** 10/10/2012 **Date/Time Received** 10/16/2012 1:00 PM
Client Sample ID 1210660-001F / SWMU 1-24 GW **Sampling Time** 10:15 AM
Matrix Water **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0587	mg/L	0.01	10/24/2012	CRW	EPA 335.4	

Sample Number 121016063-002 **Sampling Date** 10/10/2012 **Date/Time Received** 10/16/2012 1:00 PM
Client Sample ID 1210660-002F / SWMU 1-24 GW DUP **Sampling Time** 10:15 AM
Matrix Water **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0806	mg/L	0.01	10/24/2012	CRW	EPA 335.4	

Sample Number 121016063-003 **Sampling Date** 10/10/2012 **Date/Time Received** 10/16/2012 1:00 PM
Client Sample ID 1210660-004F / EB101012 **Sampling Time** 6:45 PM
Matrix Water **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	10/24/2012	CRW	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R6311**	RunNo: **6311**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181710** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R6311**	RunNo: **6311**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181711** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Beryllium	0.51	0.0020	0.5000	0	103	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	98.9	85	115			
Cobalt	0.49	0.0060	0.5000	0	97.1	85	115			
Manganese	0.49	0.0020	0.5000	0	98.1	85	115			
Nickel	0.48	0.010	0.5000	0	95.9	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Vanadium	0.52	0.050	0.5000	0	104	85	115			
Zinc	0.49	0.010	0.5000	0	98.4	85	115			

Sample ID **1210572-018AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R6311**	RunNo: **6311**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181754** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	101	70	130			
Chromium	0.47	0.0060	0.5000	0	95.0	70	130			
Nickel	0.45	0.010	0.5000	0.001290	90.7	70	130			
Zinc	0.46	0.010	0.5000	0	92.7	70	130			

Sample ID **1210572-018AMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R6311**	RunNo: **6311**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181755** Units: **mg/L**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	1210572-018AMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Metals					
Client ID:	BatchQC	Batch ID:	R6311	RunNo:	6311					
Prep Date:		Analysis Date:	10/17/2012	SeqNo:	181755	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	99.7	70	130	1.02	20	
Chromium	0.47	0.0060	0.5000	0	93.9	70	130	1.11	20	
Nickel	0.46	0.010	0.5000	0.001290	92.0	70	130	1.48	20	
Zinc	0.46	0.010	0.5000	0	91.7	70	130	1.09	20	

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Metals					
Client ID:	PBW	Batch ID:	R6342	RunNo:	6342					
Prep Date:		Analysis Date:	10/18/2012	SeqNo:	182483	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Metals					
Client ID:	LCSW	Batch ID:	R6342	RunNo:	6342					
Prep Date:		Analysis Date:	10/18/2012	SeqNo:	182484	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	0.49	0.020	0.5000	0	98.1	85	115			

Sample ID	1210513-001AMS	SampType:	MS	TestCode:	EPA Method 200.7: Metals					
Client ID:	BatchQC	Batch ID:	R6342	RunNo:	6342					
Prep Date:		Analysis Date:	10/18/2012	SeqNo:	182578	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.50	0.020	0.5000	0	100	70	130			

Sample ID	1210513-001AMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Metals					
Client ID:	BatchQC	Batch ID:	R6342	RunNo:	6342					
Prep Date:		Analysis Date:	10/18/2012	SeqNo:	182579	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.49	0.020	0.5000	0	98.8	70	130	1.41	20	

Sample ID	MB-4388	SampType:	MBLK	TestCode:	EPA Method 200.7: Metals					
Client ID:	PBW	Batch ID:	4388	RunNo:	6377					
Prep Date:	10/18/2012	Analysis Date:	10/19/2012	SeqNo:	183397	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4388**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **4388**	RunNo: **6377**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **183397** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID **LCS-4388**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **4388**	RunNo: **6377**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **183398** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.9	85	115			
Beryllium	0.52	0.0020	0.5000	0	104	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	97.1	85	115			
Cobalt	0.47	0.0060	0.5000	0	93.3	85	115			
Iron	0.47	0.020	0.5000	0	94.4	85	115			
Manganese	0.47	0.0020	0.5000	0	93.4	85	115			
Nickel	0.46	0.010	0.5000	0	92.2	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Vanadium	0.51	0.050	0.5000	0	102	85	115			
Zinc	0.48	0.010	0.5000	0	95.3	85	115			

Sample ID **1210692-027DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **4388**	RunNo: **6377**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **183451** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.45	0.0020	0.5000	0.001070	90.6	70	130			
Beryllium	0.49	0.0020	0.5000	0	97.3	70	130			
Cadmium	0.48	0.0020	0.5000	0	95.6	70	130			
Chromium	0.46	0.0060	0.5000	0	91.5	70	130			
Cobalt	0.43	0.0060	0.5000	0	86.4	70	130			
Manganese	0.45	0.0020	0.5000	0.001780	89.2	70	130			
Nickel	0.42	0.010	0.5000	0.001690	83.9	70	130			
Silver	0.095	0.0050	0.1000	0	94.9	70	130			
Vanadium	0.49	0.050	0.5000	0	98.2	70	130			
Zinc	0.42	0.010	0.5000	0	83.3	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	1210692-027DMSD	SampType:	MSD		TestCode:	EPA Method 200.7: Metals				
Client ID:	BatchQC	Batch ID:	4388		RunNo:	6377				
Prep Date:	10/18/2012	Analysis Date:	10/19/2012		SeqNo:	183452	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.001070	91.1	70	130	0.538	20	
Beryllium	0.49	0.0020	0.5000	0	97.1	70	130	0.126	20	
Cadmium	0.48	0.0020	0.5000	0	95.8	70	130	0.190	20	
Chromium	0.46	0.0060	0.5000	0	91.8	70	130	0.347	20	
Cobalt	0.43	0.0060	0.5000	0	86.8	70	130	0.490	20	
Manganese	0.45	0.0020	0.5000	0.001780	89.7	70	130	0.617	20	
Nickel	0.42	0.010	0.5000	0.001690	84.4	70	130	0.521	20	
Silver	0.098	0.0050	0.1000	0	98.2	70	130	3.36	20	
Vanadium	0.49	0.050	0.5000	0	98.2	70	130	0.0244	20	
Zinc	0.42	0.010	0.5000	0	83.9	70	130	0.765	20	

Sample ID	1210692-027DMS	SampType:	MS		TestCode:	EPA Method 200.7: Metals				
Client ID:	BatchQC	Batch ID:	4388		RunNo:	6431				
Prep Date:	10/18/2012	Analysis Date:	10/23/2012		SeqNo:	184811	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.60	0.020	0.5000	0.1311	92.9	70	130			

Sample ID	1210692-027DMSD	SampType:	MSD		TestCode:	EPA Method 200.7: Metals				
Client ID:	BatchQC	Batch ID:	4388		RunNo:	6431				
Prep Date:	10/18/2012	Analysis Date:	10/23/2012		SeqNo:	184812	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.60	0.020	0.5000	0.1311	94.6	70	130	1.40	20	

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	MB-4388	SampType:	MBLK	TestCode:	EPA 200.8: Metals					
Client ID:	PBW	Batch ID:	4388	RunNo:	6368					
Prep Date:	10/18/2012	Analysis Date:	10/19/2012	SeqNo:	183111	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0025								
Arsenic	ND	0.0025								
Lead	ND	0.0025								

Sample ID	1209C98-001AMS	SampType:	MS	TestCode:	EPA 200.8: Metals					
Client ID:	BatchQC	Batch ID:	R6483	RunNo:	6483					
Prep Date:		Analysis Date:	10/25/2012	SeqNo:	186650	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.031	0.0010	0.02500	0.005774	102	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Metals					
Client ID:	LCSW	Batch ID:	R6483	RunNo:	6483					
Prep Date:		Analysis Date:	10/25/2012	SeqNo:	186664	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.026	0.0010	0.02500	0	103	85	115			
Arsenic	0.026	0.0010	0.02500	0	104	85	115			
Lead	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Metals					
Client ID:	LCSW	Batch ID:	R6483	RunNo:	6483					
Prep Date:		Analysis Date:	10/25/2012	SeqNo:	186665	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.026	0.0010	0.02500	0	104	85	115			
Arsenic	0.026	0.0010	0.02500	0	105	85	115			
Lead	0.027	0.0010	0.02500	0	106	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Metals					
Client ID:	PBW	Batch ID:	R6483	RunNo:	6483					
Prep Date:		Analysis Date:	10/25/2012	SeqNo:	186667	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **186668** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **1210516-002BMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187056** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	102	70	130			
Lead	0.029	0.0010	0.02500	0.002703	104	70	130			
Selenium	0.026	0.0010	0.02500	0	102	70	130			

Sample ID **1210544-001CMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187059** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	98.2	70	130			
Arsenic	0.027	0.0010	0.02500	0.001693	101	70	130			
Selenium	0.026	0.0010	0.02500	0.001046	100	70	130			

Sample ID **1210724-001AMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187071** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.048	0.0010	0.02500	0.02319	99.5	70	130			

Sample ID **1210724-010AMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187081** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0010	0.02500	0.004033	101	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187100** Units: **mg/L**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187100** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.024	0.0010	0.02500	0	96.9	85	115			
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.026	0.0010	0.02500	0	104	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187101** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.024	0.0010	0.02500	0	96.2	85	115			
Arsenic	0.025	0.0010	0.02500	0	99.5	85	115			
Lead	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187102** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187103** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB-4738**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **4738**	RunNo: **6848**
Prep Date: **11/8/2012**	Analysis Date: **11/12/2012**	SeqNo: **198392** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0025								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	**MB-4503**	SampType: **MBLK**		TestCode: **EPA Method 245.1: Mercury**					
Client ID:	**PBW**	Batch ID: **4503**		RunNo: **6470**					
Prep Date:	**10/24/2012**	Analysis Date: **10/24/2012**		SeqNo: **186274**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	**LCS-4503**	SampType: **LCS**		TestCode: **EPA Method 245.1: Mercury**					
Client ID:	**LCSW**	Batch ID: **4503**		RunNo: **6470**					
Prep Date:	**10/24/2012**	Analysis Date: **10/24/2012**		SeqNo: **186276**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.2	80	120			

Sample ID	**1210675-003BMS**	SampType: **ms**		TestCode: **EPA Method 245.1: Mercury**					
Client ID:	**BatchQC**	Batch ID: **4503**		RunNo: **6470**					
Prep Date:	**10/24/2012**	Analysis Date: **10/24/2012**		SeqNo: **186299**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0042	0.00020	0.005000	0	83.0	75	125			

Sample ID	**1210675-003BMSD**	SampType: **msd**		TestCode: **EPA Method 245.1: Mercury**					
t ID:	**BatchQC**	Batch ID: **4503**		RunNo: **6470**					
Prep Date:	**10/24/2012**	Analysis Date: **10/24/2012**		SeqNo: **186300**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0040	0.00020	0.005000	0	80.1	75	125	3.62	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6232**	RunNo: **6232**
Prep Date:	Analysis Date: **10/13/2012**	SeqNo: **179591** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6232**	RunNo: **6232**
Prep Date:	Analysis Date: **10/13/2012**	SeqNo: **179592** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	95.5	90	110			
Chloride	4.9	0.50	5.000	0	97.6	90	110			
Sulfate	9.8	0.50	10.00	0	97.9	90	110			

Sample ID **1210676-008AMSx1**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6232**	RunNo: **6232**
Prep Date:	Analysis Date: **10/13/2012**	SeqNo: **179594** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	4.9	1.0	5.000	0.3890	90.3	76.6	110			

Sample ID **1210676-008AMSDx**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6232**	RunNo: **6232**
Prep Date:	Analysis Date: **10/13/2012**	SeqNo: **179595** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	4.9	1.0	5.000	0.3890	90.1	76.6	110	0.204	20	

Sample ID **1210676-011AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6232**	RunNo: **6232**
Prep Date:	Analysis Date: **10/13/2012**	SeqNo: **179603** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.3	0.10	0.5000	1.108	33.5	76.6	110			S

Sample ID **1210676-011AMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6232**	RunNo: **6232**
Prep Date:	Analysis Date: **10/13/2012**	SeqNo: **179604** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.3	0.10	0.5000	1.108	34.3	76.6	110	0.321	20	S

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R6279**	RunNo: **6279**							
Prep Date:	Analysis Date: **10/16/2012**	SeqNo: **180866**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R6279**	RunNo: **6279**							
Prep Date:	Analysis Date: **10/16/2012**	SeqNo: **180867**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.5	90	110			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R6279**	RunNo: **6279**							
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **180926**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
t ID: **LCSW**	Batch ID: **R6279**	RunNo: **6279**							
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **180927**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.0	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4284**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **4284**	RunNo: **6179**
Prep Date: **10/12/2012**	Analysis Date: **10/12/2012**	SeqNo: **178640** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		110	79.5	166			

Sample ID **LCS-4284**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **4284**	RunNo: **6179**
Prep Date: **10/12/2012**	Analysis Date: **10/12/2012**	SeqNo: **178642** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.5	1.0	5.000	0	89.4	74	157			
Surr: DNOP	0.46		0.5000		92.8	79.5	166			

Sample ID **LCSD-4284**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **4284**	RunNo: **6179**
Prep Date: **10/12/2012**	Analysis Date: **10/12/2012**	SeqNo: **178643** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.2	1.0	5.000	0	83.9	74	157	6.29	23	
Surr: DNOP	0.51		0.5000		103	79.5	166	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml rb-b**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6340**	RunNo: **6340**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **182455** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml rb-b**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6340**	RunNo: **6340**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **182455** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.5		10.00		84.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	8.8		10.00		87.8	70	130			
Surr: Toluene-d8	9.7		10.00		97.3	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6340**	RunNo: **6340**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **182457** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	115	70	130			
Toluene	21	1.0	20.00	0	105	80	120			
Chlorobenzene	21	1.0	20.00	0	105	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	107	73.7	122			
Trichloroethene (TCE)	19	1.0	20.00	0	94.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.6	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.3	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6340**	RunNo: **6340**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **182457** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.6		10.00		95.7	70	130			
Surr: Toluene-d8	9.6		10.00		96.4	70	130			

Sample ID **1210660-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **SWMU 1-24 GW**	Batch ID: **R6340**	RunNo: **6340**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **182459** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	130	5.0	100.0	19.53	115	66.8	128			
Toluene	120	5.0	100.0	18.25	100	70	130			
Chlorobenzene	99	5.0	100.0	0	98.8	70	130			
1,1-Dichloroethene	110	5.0	100.0	0	109	70	130			
Trichloroethene (TCE)	94	5.0	100.0	0	94.0	70	130			
Surr: 1,2-Dichloroethane-d4	45		50.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	47		50.00		94.9	70	130			
Surr: Dibromofluoromethane	47		50.00		94.8	70	130			
Surr: Toluene-d8	47		50.00		94.4	70	130			

Sample ID **1210660-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **SWMU 1-24 GW**	Batch ID: **R6340**	RunNo: **6340**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **182460** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	130	5.0	100.0	19.53	107	66.8	128	6.17	16.7	
Toluene	110	5.0	100.0	18.25	93.5	70	130	5.64	18.7	
Chlorobenzene	98	5.0	100.0	0	98.5	70	130	0.270	19.5	
1,1-Dichloroethene	100	5.0	100.0	0	104	70	130	4.23	16.7	
Trichloroethene (TCE)	92	5.0	100.0	0	91.9	70	130	2.26	17.5	
Surr: 1,2-Dichloroethane-d4	46		50.00		92.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	48		50.00		96.8	70	130	0	0	
Surr: Dibromofluoromethane	47		50.00		94.3	70	130	0	0	
Surr: Toluene-d8	47		50.00		94.8	70	130	0	0	

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4322**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4322**	RunNo: **6287**
Prep Date: **10/16/2012**	Analysis Date: **10/16/2012**	SeqNo: **181174** Units: **µg/L**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4322**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4322**	RunNo: **6287**
Prep Date: **10/16/2012**	Analysis Date: **10/16/2012**	SeqNo: **181174** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	140		200.0		71.8	44.2	126			
Surr: 2-Fluorobiphenyl	86		100.0		86.2	37	114			
Surr: 2-Fluorophenol	110		200.0		56.3	23.4	98			
Surr: 4-Terphenyl-d14	76		100.0		75.8	41.3	116			
Surr: Nitrobenzene-d5	98		100.0		97.6	39.5	118			
Surr: Phenol-d5	100		200.0		52.2	20.9	95.9			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4322**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **4322**	RunNo: **6287**
Prep Date: **10/16/2012**	Analysis Date: **10/16/2012**	SeqNo: **181175** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	77	10	100.0	0	77.2	38.2	99.4			
4-Chloro-3-methylphenol	170	10	200.0	0	85.8	35.5	108			
2-Chlorophenol	150	10	200.0	0	74.2	29.8	106			
1,4-Dichlorobenzene	57	10	100.0	0	57.1	32.6	91.5			
2,4-Dinitrotoluene	98	10	100.0	0	98.4	44.7	112			
N-Nitrosodi-n-propylamine	89	10	100.0	0	88.6	38.5	105			
4-Nitrophenol	75	10	200.0	0	37.6	11.6	73.1			
Pentachlorophenol	86	20	200.0	0	42.8	20.2	93			
Phenol	92	10	200.0	0	46.2	23	66.1			
Pyrene	76	10	100.0	0	76.1	40.1	101			
1,2,4-Trichlorobenzene	66	10	100.0	0	65.6	37.7	99.1			
Surr: 2,4,6-Tribromophenol	170		200.0		85.9	44.2	126			
Surr: 2-Fluorobiphenyl	79		100.0		78.9	37	114			
Surr: 2-Fluorophenol	120		200.0		58.0	23.4	98			
Surr: 4-Terphenyl-d14	81		100.0		80.7	41.3	116			
Surr: Nitrobenzene-d5	85		100.0		84.6	39.5	118			
Surr: Phenol-d5	100		200.0		52.3	20.9	95.9			

Sample ID **lcsd-4322**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **4322**	RunNo: **6287**
Prep Date: **10/16/2012**	Analysis Date: **10/16/2012**	SeqNo: **181176** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	78	10	100.0	0	77.9	38.2	99.4	0.980	20	
4-Chloro-3-methylphenol	180	10	200.0	0	88.1	35.5	108	2.61	20	
2-Chlorophenol	150	10	200.0	0	76.6	29.8	106	3.08	20	
1,4-Dichlorobenzene	60	10	100.0	0	59.6	32.6	91.5	4.28	20	
2,4-Dinitrotoluene	110	10	100.0	0	106	44.7	112	7.64	20	
N-Nitrosodi-n-propylamine	89	10	100.0	0	88.7	38.5	105	0.113	20	
4-Nitrophenol	100	10	200.0	0	50.4	11.6	73.1	28.9	20	R
Pentachlorophenol	110	20	200.0	0	55.0	20.2	93	25.2	20	R
Phenol	97	10	200.0	0	48.6	23	66.1	5.21	20	
Pyrene	81	10	100.0	0	81.0	40.1	101	6.19	20	
1,2,4-Trichlorobenzene	66	10	100.0	0	66.3	37.7	99.1	0.970	20	
Surr: 2,4,6-Tribromophenol	190		200.0		93.8	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	82		100.0		81.6	37	114	0	0	
Surr: 2-Fluorophenol	120		200.0		60.8	23.4	98	0	0	
Surr: 4-Terphenyl-d14	78		100.0		78.5	41.3	116	0	0	
Surr: Nitrobenzene-d5	86		100.0		85.7	39.5	118	0	0	
Surr: Phenol-d5	110		200.0		53.9	20.9	95.9	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210660**

19-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **b6**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/20/2012**	SeqNo: **184074** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.6		10.00		95.8	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184077** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.43	0.050	0.5000	0	86.2	85	115			
Surr: BFB	10		10.00		99.9	70	130			

Sample ID **1210660-001ams**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **SWMU 1-24 GW**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/20/2012**	SeqNo: **184078** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.0	0.25	2.500	1.915	82.1	70	130			
BFB	46		50.00		91.6	70	130			

Sample ID **1210660-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **SWMU 1-24 GW**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/20/2012**	SeqNo: **184079** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	3.8	0.25	2.500	1.915	76.4	70	130	3.70	20	
Surr: BFB	51		50.00		102	70	130	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1210660**

Received by/date: MG 10/12/12

Logged By: **Michelle Garcia** **10/12/2012 8:00:00 AM** Michelle Garcia

Completed By: **Michelle Garcia** **10/12/2012 9:45:55 AM** Michelle Garcia

Reviewed By: MG / JS 10/12/12

Chain of Custody

		Yes	No	Not Present
1.	Were seals intact?			✓
2.	Is Chain of Custody complete?	✓		
3.	How was the sample delivered?	FedEx		

Log In

		Yes	No	NA
4.	Coolers are present? (see 19. for cooler specific information)	✓		
5.	Was an attempt made to cool the samples?	✓		
6.	Were all samples received at a temperature of >0° C to 6.0°C	✓		
7.	Sample(s) in proper container(s)?	✓		
8.	Sufficient sample volume for indicated test(s)?	✓		
9.	Are samples (except VOA and ONG) properly preserved?	~~Yes~~ ✓	~~No~~ ✓	
10.	Was preservative added to bottles?		~~No~~ ✓	
11.	VOA vials have zero headspace?	✓		No VOA Vials
12.	Were any sample containers received broken?		✓	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	✓		
14.	Are matrices correctly identified on Chain of Custody?	✓		
15.	Is it clear what analyses were requested?	✓		
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	✓		

-001E - ADDED 2mL HNO_3 -002E - ADDED 2mL HNO_3 FOR ACCEPTABLE pH - MG 10/12/12

# of preserved bottles checked for pH: 3 3 (<2 or >12 unless noted)

Adjusted? Yes

Checked by: JS

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ✓

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. **Cooler Information**

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

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
[illegible]
Sample Temperature: [illegible]

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/10/12	1015	GW	SWMU 1-2H GW	6 VOA	HCL	-001										X						
				1 AMBER	—												X					
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NaOH														X			
				1 PLASTIC	—														X			
			SWMU 1-2H GW DUP	6 VOA	HCL	-002										X						
				1 AMBER	—												X					
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NaOH														X			
				1 PLASTIC	—														X			
10/10/12	—	W	TRIP BLANK	3 VOA	HCL	-003										X						

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/11/12	0735	[signature]	[signature]	10/12/12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

Chain-of-Custody Record

Client: WESTERN REFINING SW INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH- RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name:
Project #: SWMU No. 1
Project Manager: SCOTT CROUCH- RPS
Sampler: TRACY PAYNE- RPS
On Ice: ☐ No
Sample Temperature: 1.0

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	[illegible]	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
~~10/9/12~~ 9/19/12	1845	W	EB101012	6 VOA	HCL	-004										X						
				1 AMBER	—												X					
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NaOH														X			
				1 PLASTIC	—														X			

Date: 10/11/12 Time: 0735 Relinquished by: [signature] Received by: [signature] Date: 10/12/12 Time: 0805
Date: Time: Relinquished by: Received by: Date Time

Remarks:

ssary, samples submitted to Hall Environmental may be subcontracted to other accredited laborato This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analy port.

Rpt	T	Analyte	Units	Synonym	MDL	LOD	LOQ
☐	A	Aluminum	mg/Kg		0.4481	0	
☑	A	Antimony	mg/Kg		0.629	0	
☑	A	Arsenic	mg/Kg		0.6263	0	
☑	A	Barium	mg/Kg		0.0609	0	
☑	A	Beryllium	mg/Kg		0.0093	0	
☐	A	Boron	mg/Kg		0.0826	0	
☑	A	Cadmium	mg/Kg		0.0271	0	
☐	A	Calcium	mg/Kg		6.9713	0	
☑	A	Chromium	mg/Kg		0.1184	0	
☑	A	Cobalt	mg/Kg		0.0689	0	
☐	A	Copper	mg/Kg		0.2323	0	
☑	A	Iron	mg/Kg		0.7476	0	
☑	A	Lead	mg/Kg		0.2194	0	
☐	A	Magnesium	mg/Kg		0.4651	0	
☑	A	Manganese	mg/Kg		0.0212	0	
☐	A	Molybdenum	mg/Kg		0.1423	0	
☑	A	Nickel	mg/Kg		0.1668	0	
☐	A	Potassium	mg/Kg		17.3925	0	
☑	A	Selenium	mg/Kg		1.4025	0	
☑	A	Silver	mg/Kg		0.0354	0	
☐	A	Sodium	mg/Kg		8.4278	0	
☐	A	Thallium	mg/Kg		1.1557	0	
☐	A	Tin	mg/Kg		0.8261	0	
☐	A	Titanium	mg/Kg		0.0342	0	
☐	A	Uranium	mg/Kg		0.7296	0	
☑	A	Vanadium	mg/Kg		0.0565	0	
☑	A	Zinc	mg/Kg		1.0068	0	
☐	I	Yttrium	%		0	0	
☐	I	Yttrium Radial	%		0	0	
☐	X	Uranium-confirmation	mg/Kg		0	0	
☐	X	Silicon	mg/Kg		0	0	

+ Hg
+ Cn
+ Anions

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

November 19, 2012

Scott Crouch
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.1 OrderNo.: 1210692

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 29 sample(s) on 10/13/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1210692**
Date Reported: **11/19/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-20 (0-0.5')
Collection Date: 10/11/2012 12:20:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/16/2012 2:24:10 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/16/2012 2:24:10 PM
Surr: DNOP	92.3	77.6-140		%REC	1	10/16/2012 2:24:10 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.038	0.033		mg/kg	1	10/23/2012 4:41:09 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 9:11:00 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 9:11:00 PM
Barium	740	2.0		mg/Kg	20	11/2/2012 7:24:51 AM
Beryllium	0.71	0.30		mg/Kg	2	10/25/2012 9:11:00 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 9:11:00 PM
Chromium	19	0.60		mg/Kg	2	10/25/2012 9:11:00 PM
Cobalt	4.0	0.60		mg/Kg	2	10/25/2012 9:11:00 PM
Iron	15000	500		mg/Kg	500	11/2/2012 7:27:16 AM
Lead	2.6	0.50		mg/Kg	2	10/25/2012 9:11:00 PM
Manganese	650	2.0		mg/Kg	20	11/2/2012 7:24:51 AM
Nickel	6.9	1.0		mg/Kg	2	10/25/2012 9:11:00 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 9:11:00 PM
Silver	ND	0.50		mg/Kg	2	10/25/2012 9:11:00 PM
Vanadium	22	5.0		mg/Kg	2	10/25/2012 9:11:00 PM
Zinc	22	5.0		mg/Kg	2	10/25/2012 9:11:00 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Acenaphthylene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Aniline	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Anthracene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Azobenzene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Benzoic acid	ND	1.0		mg/Kg	1	10/21/2012 7:10:04 AM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/21/2012 7:10:04 AM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-20 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/11/2012 12:20:00 PM
Lab ID: 1210692-001 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Carbazole	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 7:10:04 AM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/21/2012 7:10:04 AM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/21/2012 7:10:04 AM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Chrysene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/21/2012 7:10:04 AM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/21/2012 7:10:04 AM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Dibenzofuran	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
3,3´-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/21/2012 7:10:04 AM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/21/2012 7:10:04 AM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/21/2012 7:10:04 AM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 7:10:04 AM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/21/2012 7:10:04 AM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 7:10:04 AM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 7:10:04 AM
Fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Fluorene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Hexachloroethane	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Isophorone	ND	1.0		mg/Kg	1	10/21/2012 7:10:04 AM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
2-Methylphenol	ND	1.0		mg/Kg	1	10/21/2012 7:10:04 AM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Naphthalene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
3-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/21/2012 7:10:04 AM
Nitrobenzene	ND	1.0		mg/Kg	1	10/21/2012 7:10:04 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-20 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/11/2012 12:20:00 PM
Lab ID: 1210692-001 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Nitrophenol	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/21/2012 7:10:04 AM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/21/2012 7:10:04 AM
Phenanthrene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Phenol	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Pyrene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Pyridine	ND	1.0		mg/Kg	1	10/21/2012 7:10:04 AM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 7:10:04 AM
Surr: 2,4,6-Tribromophenol	54.6	21.3-145		%REC	1	10/21/2012 7:10:04 AM
Surr: 2-Fluorobiphenyl	62.8	20-131		%REC	1	10/21/2012 7:10:04 AM
Surr: 2-Fluorophenol	50.4	11.9-130		%REC	1	10/21/2012 7:10:04 AM
Surr: 4-Terphenyl-d14	67.4	25.1-149		%REC	1	10/21/2012 7:10:04 AM
Surr: Nitrobenzene-d5	65.1	25.6-137		%REC	1	10/21/2012 7:10:04 AM
Surr: Phenol-d5	54.6	20.3-132		%REC	1	10/21/2012 7:10:04 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00137	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Toluene	0.00197	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Ethylbenzene	0.0448	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Xylenes, Total	0.279	0.00162	E	mg/Kg	1	10/15/2012 1:49:48 PM
Methyl tert-butyl ether (MTBE)	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,2,4-Trimethylbenzene	0.00140	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,3,5-Trimethylbenzene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,2-Dichloroethane (EDC)	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,2-Dibromoethane (EDB)	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Naphthalene	ND	0.00162		mg/Kg	1	10/15/2012 1:49:48 PM
1-Methylnaphthalene	ND	0.00324		mg/Kg	1	10/15/2012 1:49:48 PM
2-Methylnaphthalene	ND	0.00324		mg/Kg	1	10/15/2012 1:49:48 PM
Acetone	3.31	0.00810	E	mg/Kg	1	10/15/2012 1:49:48 PM
Bromobenzene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Bromodichloromethane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Bromoform	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Bromomethane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
2-Butanone	0.0220	0.00810		mg/Kg	1	10/15/2012 1:49:48 PM
Carbon tetrachloride	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Chlorobenzene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Chloroethane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Chloroform	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Chloromethane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
2-Chlorotoluene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-20 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/11/2012 12:20:00 PM
Lab ID: 1210692-001 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Carbon disulfide	ND	0.00810		mg/Kg	1	10/15/2012 1:49:48 PM
4-Chlorotoluene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
cis-1,2-DCE	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
cis-1,3-Dichloropropene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,2-Dibromo-3-chloropropane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Dibromochloromethane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Dibromomethane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,2-Dichlorobenzene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,3-Dichlorobenzene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,4-Dichlorobenzene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Dichlorodifluoromethane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,1-Dichloroethane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,1-Dichloroethene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,2-Dichloropropane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,3-Dichloropropane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
2,2-Dichloropropane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,1-Dichloropropene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Hexachlorobutadiene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Isopropylbenzene	0.00210	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
4-Isopropyltoluene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Methylene chloride	ND	0.00243		mg/Kg	1	10/15/2012 1:49:48 PM
n-Butylbenzene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
2-Hexanone	ND	0.00810		mg/Kg	1	10/15/2012 1:49:48 PM
n-Propylbenzene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
sec-Butylbenzene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Styrene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
4-Methyl-2-pentanone	ND	0.00810		mg/Kg	1	10/15/2012 1:49:48 PM
tert-Butylbenzene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,1,1,2-Tetrachloroethane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,1,2,2-Tetrachloroethane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Tetrachloroethene (PCE)	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
trans-1,2-DCE	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
trans-1,3-Dichloropropene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,2,3-Trichlorobenzene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,2,4-Trichlorobenzene	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,1,1-Trichloroethane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,1,2-Trichloroethane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Trichloroethene (TCE)	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Trichlorofluoromethane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
1,2,3-Trichloropropane	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Vinyl chloride	ND	0.000810		mg/Kg	1	10/15/2012 1:49:48 PM
Surr: 1,2-Dichloroethane-d4	88.1	70-130		%REC	1	10/15/2012 1:49:48 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-20 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/11/2012 12:20:00 PM
Lab ID: 1210692-001 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	10/15/2012 1:49:48 PM
Surr: Dibromofluoromethane	100	70-130		%REC	1	10/15/2012 1:49:48 PM
Surr: Toluene-d8	87.1	70-130		%REC	1	10/15/2012 1:49:48 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/21/2012 2:47:27 PM
Surr: BFB	88.8	70-130		%REC	1	10/21/2012 2:47:27 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-20 (0-0.5') DUP
Collection Date: 10/11/2012 12:20:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/16/2012 2:49:37 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/16/2012 2:49:37 PM
Surr: DNOP	93.8	77.6-140		%REC	1	10/16/2012 2:49:37 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.037	0.033		mg/kg	1	10/23/2012 4:42:56 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	13		mg/Kg	5	11/2/2012 7:30:09 AM
Arsenic	ND	13		mg/Kg	5	11/2/2012 7:30:09 AM
Barium	840	2.0		mg/Kg	20	11/2/2012 9:49:13 AM
Beryllium	0.94	0.75		mg/Kg	5	11/2/2012 7:30:09 AM
Cadmium	ND	0.50		mg/Kg	5	11/2/2012 7:30:09 AM
Chromium	23	1.5		mg/Kg	5	11/2/2012 7:30:09 AM
Cobalt	5.4	1.5		mg/Kg	5	11/2/2012 7:30:09 AM
Iron	19000	500		mg/Kg	500	11/2/2012 9:51:40 AM
Lead	3.4	1.3		mg/Kg	5	11/2/2012 7:30:09 AM
Manganese	680	2.0		mg/Kg	20	11/2/2012 9:49:13 AM
Nickel	8.5	2.5		mg/Kg	5	11/2/2012 7:30:09 AM
Selenium	ND	13		mg/Kg	5	11/2/2012 7:30:09 AM
Silver	ND	1.3		mg/Kg	5	11/2/2012 7:30:09 AM
Vanadium	32	13		mg/Kg	5	11/2/2012 7:30:09 AM
Zinc	28	13		mg/Kg	5	11/2/2012 7:30:09 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Acenaphthylene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Aniline	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Anthracene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Azobenzene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Benzoic acid	ND	1.0		mg/Kg	1	10/21/2012 7:38:49 AM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/21/2012 7:38:49 AM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-20 (0-0.5') DUP
Project: SWMU NO.1
Collection Date: 10/11/2012 12:20:00 PM
Lab ID: 1210692-002 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Carbazole	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 7:38:49 AM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/21/2012 7:38:49 AM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/21/2012 7:38:49 AM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Chrysene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/21/2012 7:38:49 AM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/21/2012 7:38:49 AM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Dibenzofuran	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/21/2012 7:38:49 AM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/21/2012 7:38:49 AM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/21/2012 7:38:49 AM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 7:38:49 AM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/21/2012 7:38:49 AM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 7:38:49 AM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 7:38:49 AM
Fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Fluorene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Hexachloroethane	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Isophorone	ND	1.0		mg/Kg	1	10/21/2012 7:38:49 AM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
2-Methylphenol	ND	1.0		mg/Kg	1	10/21/2012 7:38:49 AM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Naphthalene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
3-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/21/2012 7:38:49 AM
Nitrobenzene	ND	1.0		mg/Kg	1	10/21/2012 7:38:49 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-20 (0-0.5') DUP
Project: SWMU NO.1
Collection Date: 10/11/2012 12:20:00 PM
Lab ID: 1210692-002 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Nitrophenol	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/21/2012 7:38:49 AM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/21/2012 7:38:49 AM
Phenanthrene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Phenol	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Pyrene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Pyridine	ND	1.0		mg/Kg	1	10/21/2012 7:38:49 AM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 7:38:49 AM
Surr: 2,4,6-Tribromophenol	47.1	21.3-145		%REC	1	10/21/2012 7:38:49 AM
Surr: 2-Fluorobiphenyl	54.9	20-131		%REC	1	10/21/2012 7:38:49 AM
Surr: 2-Fluorophenol	42.7	11.9-130		%REC	1	10/21/2012 7:38:49 AM
Surr: 4-Terphenyl-d14	59.1	25.1-149		%REC	1	10/21/2012 7:38:49 AM
Surr: Nitrobenzene-d5	50.0	25.6-137		%REC	1	10/21/2012 7:38:49 AM
Surr: Phenol-d5	44.3	20.3-132		%REC	1	10/21/2012 7:38:49 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00188	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Toluene	0.00386	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Ethylbenzene	0.0622	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Xylenes, Total	0.379	0.00246	E	mg/Kg	1	10/15/2012 2:20:41 PM
Methyl tert-butyl ether (MTBE)	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,2,4-Trimethylbenzene	0.00184	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,3,5-Trimethylbenzene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,2-Dichloroethane (EDC)	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,2-Dibromoethane (EDB)	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Naphthalene	ND	0.00246		mg/Kg	1	10/15/2012 2:20:41 PM
1-Methylnaphthalene	ND	0.00491		mg/Kg	1	10/15/2012 2:20:41 PM
2-Methylnaphthalene	ND	0.00491		mg/Kg	1	10/15/2012 2:20:41 PM
Acetone	3.98	0.0123		mg/Kg	1	10/15/2012 2:20:41 PM
Bromobenzene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Bromodichloromethane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Bromoform	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Bromomethane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
2-Butanone	0.0314	0.0123		mg/Kg	1	10/15/2012 2:20:41 PM
Carbon tetrachloride	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Chlorobenzene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Chloroethane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Chloroform	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Chloromethane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
2-Chlorotoluene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-20 (0-0.5') DUP
Collection Date: 10/11/2012 12:20:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Carbon disulfide	ND	0.0123		mg/Kg	1	10/15/2012 2:20:41 PM
4-Chlorotoluene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
cis-1,2-DCE	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
cis-1,3-Dichloropropene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,2-Dibromo-3-chloropropane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Dibromochloromethane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Dibromomethane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,2-Dichlorobenzene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,3-Dichlorobenzene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,4-Dichlorobenzene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Dichlorodifluoromethane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,1-Dichloroethane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,1-Dichloroethene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,2-Dichloropropane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,3-Dichloropropane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
2,2-Dichloropropane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,1-Dichloropropene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Hexachlorobutadiene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Isopropylbenzene	0.00282	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
4-Isopropyltoluene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Methylene chloride	ND	0.00368		mg/Kg	1	10/15/2012 2:20:41 PM
n-Butylbenzene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
2-Hexanone	ND	0.0123		mg/Kg	1	10/15/2012 2:20:41 PM
n-Propylbenzene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
sec-Butylbenzene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Styrene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
4-Methyl-2-pentanone	ND	0.0123		mg/Kg	1	10/15/2012 2:20:41 PM
tert-Butylbenzene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,1,1,2-Tetrachloroethane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,1,2,2-Tetrachloroethane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Tetrachloroethene (PCE)	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
trans-1,2-DCE	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
trans-1,3-Dichloropropene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,2,3-Trichlorobenzene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,2,4-Trichlorobenzene	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,1,1-Trichloroethane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,1,2-Trichloroethane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Trichloroethene (TCE)	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Trichlorofluoromethane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
1,2,3-Trichloropropane	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Vinyl chloride	ND	0.00123		mg/Kg	1	10/15/2012 2:20:41 PM
Surr: 1,2-Dichloroethane-d4	93.6	70-130		%REC	1	10/15/2012 2:20:41 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-20 (0-0.5') DUP
Collection Date: 10/11/2012 12:20:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	97.5	70-130		%REC	1	10/15/2012 2:20:41 PM
Surr: Dibromofluoromethane	106	70-130		%REC	1	10/15/2012 2:20:41 PM
Surr: Toluene-d8	91.2	70-130		%REC	1	10/15/2012 2:20:41 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/21/2012 3:44:56 PM
Surr: BFB	95.6	70-130		%REC	1	10/21/2012 3:44:56 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-20 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/11/2012 12:30:00 PM
Lab ID: 1210692-003 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/16/2012 9:09:09 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/16/2012 9:09:09 AM
Surr: DNOP	92.1	77.6-140		%REC	1	10/16/2012 9:09:09 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 4:44:45 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	13		mg/Kg	5	11/2/2012 7:32:33 AM
Arsenic	ND	13		mg/Kg	5	11/2/2012 7:32:33 AM
Barium	1000	5.0		mg/Kg	50	11/2/2012 10:25:25 AM
Beryllium	ND	0.75		mg/Kg	5	11/2/2012 7:32:33 AM
Cadmium	ND	0.50		mg/Kg	5	11/2/2012 7:32:33 AM
Chromium	11	1.5		mg/Kg	5	11/2/2012 7:32:33 AM
Cobalt	4.7	1.5		mg/Kg	5	11/2/2012 7:32:33 AM
Iron	16000	500		mg/Kg	500	11/2/2012 9:56:46 AM
Lead	3.9	1.3		mg/Kg	5	11/2/2012 7:32:33 AM
Manganese	950	2.0		mg/Kg	20	11/2/2012 9:54:19 AM
Nickel	7.3	2.5		mg/Kg	5	11/2/2012 7:32:33 AM
Selenium	ND	13		mg/Kg	5	11/2/2012 7:32:33 AM
Silver	ND	1.3		mg/Kg	5	11/2/2012 7:32:33 AM
Vanadium	29	13		mg/Kg	5	11/2/2012 7:32:33 AM
Zinc	17	13		mg/Kg	5	11/2/2012 7:32:33 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Aniline	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Anthracene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Azobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/21/2012 12:31:33 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/21/2012 12:31:33 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-20 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/11/2012 12:30:00 PM
Lab ID: 1210692-003 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Carbazole	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 12:31:33 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/21/2012 12:31:33 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/21/2012 12:31:33 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Chrysene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/21/2012 12:31:33 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 12:31:33 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/21/2012 12:31:33 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 12:31:33 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/21/2012 12:31:33 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 12:31:33 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/21/2012 12:31:33 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 12:31:33 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 12:31:33 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Fluorene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Isophorone	ND	0.50		mg/Kg	1	10/21/2012 12:31:33 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/21/2012 12:31:33 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Naphthalene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
3-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 12:31:33 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/21/2012 12:31:33 AM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-20 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/11/2012 12:30:00 PM
Lab ID: 1210692-003 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/21/2012 12:31:33 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/21/2012 12:31:33 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Phenol	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Pyrene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Pyridine	ND	0.50		mg/Kg	1	10/21/2012 12:31:33 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 12:31:33 AM
Surr: 2,4,6-Tribromophenol	69.5	21.3-145		%REC	1	10/21/2012 12:31:33 AM
Surr: 2-Fluorobiphenyl	82.1	20-131		%REC	1	10/21/2012 12:31:33 AM
Surr: 2-Fluorophenol	60.1	11.9-130		%REC	1	10/21/2012 12:31:33 AM
Surr: 4-Terphenyl-d14	71.6	25.1-149		%REC	1	10/21/2012 12:31:33 AM
Surr: Nitrobenzene-d5	75.8	25.6-137		%REC	1	10/21/2012 12:31:33 AM
Surr: Phenol-d5	68.9	20.3-132		%REC	1	10/21/2012 12:31:33 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00151	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Toluene	0.00105	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Ethylbenzene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Xylenes, Total	ND	0.00180		mg/Kg	1	10/15/2012 2:51:33 PM
Methyl tert-butyl ether (MTBE)	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,2,4-Trimethylbenzene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,3,5-Trimethylbenzene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,2-Dichloroethane (EDC)	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,2-Dibromoethane (EDB)	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Naphthalene	ND	0.00180		mg/Kg	1	10/15/2012 2:51:33 PM
1-Methylnaphthalene	ND	0.00360		mg/Kg	1	10/15/2012 2:51:33 PM
2-Methylnaphthalene	ND	0.00360		mg/Kg	1	10/15/2012 2:51:33 PM
Acetone	0.119	0.00899		mg/Kg	1	10/15/2012 2:51:33 PM
Bromobenzene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Bromodichloromethane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Bromoform	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Bromomethane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
2-Butanone	ND	0.00899		mg/Kg	1	10/15/2012 2:51:33 PM
Carbon tetrachloride	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Chlorobenzene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Chloroethane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Chloroform	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Chloromethane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
2-Chlorotoluene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-20 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/11/2012 12:30:00 PM
Lab ID: 1210692-003 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Carbon disulfide	ND	0.00899		mg/Kg	1	10/15/2012 2:51:33 PM
4-Chlorotoluene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
cis-1,2-DCE	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
cis-1,3-Dichloropropene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,2-Dibromo-3-chloropropane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Dibromochloromethane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Dibromomethane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,2-Dichlorobenzene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,3-Dichlorobenzene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,4-Dichlorobenzene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Dichlorodifluoromethane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,1-Dichloroethane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,1-Dichloroethene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,2-Dichloropropane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,3-Dichloropropane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
2,2-Dichloropropane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,1-Dichloropropene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Hexachlorobutadiene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Isopropylbenzene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
4-Isopropyltoluene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Methylene chloride	ND	0.00270		mg/Kg	1	10/15/2012 2:51:33 PM
n-Butylbenzene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
2-Hexanone	ND	0.00899		mg/Kg	1	10/15/2012 2:51:33 PM
n-Propylbenzene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
sec-Butylbenzene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Styrene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
4-Methyl-2-pentanone	ND	0.00899		mg/Kg	1	10/15/2012 2:51:33 PM
tert-Butylbenzene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,1,1,2-Tetrachloroethane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,1,2,2-Tetrachloroethane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Tetrachloroethene (PCE)	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
trans-1,2-DCE	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
trans-1,3-Dichloropropene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,2,3-Trichlorobenzene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,2,4-Trichlorobenzene	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,1,1-Trichloroethane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,1,2-Trichloroethane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Trichloroethene (TCE)	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Trichlorofluoromethane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
1,2,3-Trichloropropane	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Vinyl chloride	ND	0.000899		mg/Kg	1	10/15/2012 2:51:33 PM
Surr: 1,2-Dichloroethane-d4	92.4	70-130		%REC	1	10/15/2012 2:51:33 PM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-20 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/11/2012 12:30:00 PM
Lab ID: 1210692-003 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	97.8	70-130		%REC	1	10/15/2012 2:51:33 PM
Surr: Dibromofluoromethane	103	70-130		%REC	1	10/15/2012 2:51:33 PM
Surr: Toluene-d8	102	70-130		%REC	1	10/15/2012 2:51:33 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/21/2012 4:13:44 PM
Surr: BFB	88.8	70-130		%REC	1	10/21/2012 4:13:44 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-20 (4-6')
Collection Date: 10/11/2012 12:45:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/16/2012 10:45:38 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/16/2012 10:45:38 AM
Surr: DNOP	91.9	77.6-140		%REC	1	10/16/2012 10:45:38 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 4:46:30 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 9:36:54 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 9:36:54 PM
Barium	190	1.0		mg/Kg	10	11/2/2012 7:35:01 AM
Beryllium	0.97	0.30		mg/Kg	2	10/25/2012 9:36:54 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 9:36:54 PM
Chromium	10	0.60		mg/Kg	2	10/25/2012 9:36:54 PM
Cobalt	4.9	0.60		mg/Kg	2	10/25/2012 9:36:54 PM
Iron	17000	500		mg/Kg	500	11/2/2012 7:37:27 AM
Lead	2.8	0.50		mg/Kg	2	10/25/2012 9:36:54 PM
Manganese	330	1.0		mg/Kg	10	11/2/2012 7:35:01 AM
Nickel	8.6	1.0		mg/Kg	2	10/25/2012 9:36:54 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 9:36:54 PM
Silver	ND	0.50		mg/Kg	2	10/25/2012 9:36:54 PM
Vanadium	17	5.0		mg/Kg	2	10/25/2012 9:36:54 PM
Zinc	16	5.0		mg/Kg	2	10/25/2012 9:36:54 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Aniline	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Anthracene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Azobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/21/2012 1:00:43 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/21/2012 1:00:43 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-20 (4-6')
Project: SWMU NO.1
Collection Date: 10/11/2012 12:45:00 PM
Lab ID: 1210692-004 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Carbazole	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 1:00:43 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/21/2012 1:00:43 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/21/2012 1:00:43 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Chrysene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/21/2012 1:00:43 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 1:00:43 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/21/2012 1:00:43 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 1:00:43 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/21/2012 1:00:43 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 1:00:43 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/21/2012 1:00:43 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 1:00:43 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 1:00:43 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Fluorene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Isophorone	ND	0.50		mg/Kg	1	10/21/2012 1:00:43 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/21/2012 1:00:43 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Naphthalene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
3-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 1:00:43 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/21/2012 1:00:43 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-20 (4-6')
Project: SWMU NO.1
Collection Date: 10/11/2012 12:45:00 PM
Lab ID: 1210692-004 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/21/2012 1:00:43 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/21/2012 1:00:43 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Phenol	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Pyrene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Pyridine	ND	0.50		mg/Kg	1	10/21/2012 1:00:43 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 1:00:43 AM
Surr: 2,4,6-Tribromophenol	77.8	21.3-145		%REC	1	10/21/2012 1:00:43 AM
Surr: 2-Fluorobiphenyl	83.8	20-131		%REC	1	10/21/2012 1:00:43 AM
Surr: 2-Fluorophenol	74.4	11.9-130		%REC	1	10/21/2012 1:00:43 AM
Surr: 4-Terphenyl-d14	74.4	25.1-149		%REC	1	10/21/2012 1:00:43 AM
Surr: Nitrobenzene-d5	90.8	25.6-137		%REC	1	10/21/2012 1:00:43 AM
Surr: Phenol-d5	85.2	20.3-132		%REC	1	10/21/2012 1:00:43 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00321	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Toluene	0.00205	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Ethylbenzene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Xylenes, Total	ND	0.00150		mg/Kg	1	10/15/2012 3:22:21 PM
Methyl tert-butyl ether (MTBE)	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,2,4-Trimethylbenzene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,3,5-Trimethylbenzene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,2-Dichloroethane (EDC)	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,2-Dibromoethane (EDB)	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Naphthalene	ND	0.00150		mg/Kg	1	10/15/2012 3:22:21 PM
1-Methylnaphthalene	ND	0.00299		mg/Kg	1	10/15/2012 3:22:21 PM
2-Methylnaphthalene	ND	0.00299		mg/Kg	1	10/15/2012 3:22:21 PM
Acetone	0.0242	0.00748		mg/Kg	1	10/15/2012 3:22:21 PM
Bromobenzene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Bromodichloromethane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Bromoform	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Bromomethane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
2-Butanone	ND	0.00748		mg/Kg	1	10/15/2012 3:22:21 PM
Carbon tetrachloride	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Chlorobenzene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Chloroethane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Chloroform	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Chloromethane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
2-Chlorotoluene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-20 (4-6')
Collection Date: 10/11/2012 12:45:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Carbon disulfide	ND	0.00748		mg/Kg	1	10/15/2012 3:22:21 PM
4-Chlorotoluene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
cis-1,2-DCE	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
cis-1,3-Dichloropropene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,2-Dibromo-3-chloropropane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Dibromochloromethane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Dibromomethane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,2-Dichlorobenzene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,3-Dichlorobenzene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,4-Dichlorobenzene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Dichlorodifluoromethane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,1-Dichloroethane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,1-Dichloroethene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,2-Dichloropropane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,3-Dichloropropane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
2,2-Dichloropropane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,1-Dichloropropene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Hexachlorobutadiene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Isopropylbenzene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
4-Isopropyltoluene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Methylene chloride	ND	0.00224		mg/Kg	1	10/15/2012 3:22:21 PM
n-Butylbenzene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
2-Hexanone	ND	0.00748		mg/Kg	1	10/15/2012 3:22:21 PM
n-Propylbenzene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
sec-Butylbenzene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Styrene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
4-Methyl-2-pentanone	ND	0.00748		mg/Kg	1	10/15/2012 3:22:21 PM
tert-Butylbenzene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,1,1,2-Tetrachloroethane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,1,2,2-Tetrachloroethane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Tetrachloroethene (PCE)	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
trans-1,2-DCE	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
trans-1,3-Dichloropropene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,2,3-Trichlorobenzene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,2,4-Trichlorobenzene	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,1,1-Trichloroethane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,1,2-Trichloroethane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Trichloroethene (TCE)	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Trichlorofluoromethane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
1,2,3-Trichloropropane	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Vinyl chloride	ND	0.000748		mg/Kg	1	10/15/2012 3:22:21 PM
Surr: 1,2-Dichloroethane-d4	97.1	70-130		%REC	1	10/15/2012 3:22:21 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-20 (4-6')
Project: SWMU NO.1
Collection Date: 10/11/2012 12:45:00 PM
Lab ID: 1210692-004 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	88.1	70-130		%REC	1	10/15/2012 3:22:21 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	10/15/2012 3:22:21 PM
Surr: Toluene-d8	87.0	70-130		%REC	1	10/15/2012 3:22:21 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/21/2012 4:42:26 PM
Surr: BFB	90.3	70-130		%REC	1	10/21/2012 4:42:26 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-20 (10-12')
Project: SWMU NO.1
Collection Date: 10/11/2012 1:00:00 PM
Lab ID: 1210692-005 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/16/2012 11:07:11 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/16/2012 11:07:11 AM
Surr: DNOP	91.5	77.6-140		%REC	1	10/16/2012 11:07:11 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 4:48:16 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 9:45:32 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 9:45:32 PM
Barium	1100	5.0		mg/Kg	50	11/2/2012 9:59:37 AM
Beryllium	1.0	0.30		mg/Kg	2	10/25/2012 9:45:32 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 9:45:32 PM
Chromium	12	0.60		mg/Kg	2	10/25/2012 9:45:32 PM
Cobalt	5.8	0.60		mg/Kg	2	10/25/2012 9:45:32 PM
Iron	18000	500		mg/Kg	500	11/2/2012 7:42:48 AM
Lead	1.5	0.50		mg/Kg	2	10/25/2012 9:45:32 PM
Manganese	540	2.0		mg/Kg	20	11/2/2012 7:40:21 AM
Nickel	12	1.0		mg/Kg	2	10/25/2012 9:45:32 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 9:45:32 PM
Silver	ND	0.50		mg/Kg	2	10/25/2012 9:45:32 PM
Vanadium	21	5.0		mg/Kg	2	10/25/2012 9:45:32 PM
Zinc	24	5.0		mg/Kg	2	10/25/2012 9:45:32 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Aniline	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Anthracene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Azobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/21/2012 1:29:49 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/21/2012 1:29:49 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-20 (10-12')
Project: SWMU NO.1
Collection Date: 10/11/2012 1:00:00 PM
Lab ID: 1210692-005 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Carbazole	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 1:29:49 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/21/2012 1:29:49 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/21/2012 1:29:49 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Chrysene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/21/2012 1:29:49 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 1:29:49 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/21/2012 1:29:49 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 1:29:49 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/21/2012 1:29:49 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 1:29:49 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/21/2012 1:29:49 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 1:29:49 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 1:29:49 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Fluorene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Isophorone	ND	0.50		mg/Kg	1	10/21/2012 1:29:49 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/21/2012 1:29:49 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Naphthalene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
3-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 1:29:49 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/21/2012 1:29:49 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-20 (10-12')
Collection Date: 10/11/2012 1:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/21/2012 1:29:49 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/21/2012 1:29:49 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Phenol	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Pyrene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Pyridine	ND	0.50		mg/Kg	1	10/21/2012 1:29:49 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 1:29:49 AM
Surr: 2,4,6-Tribromophenol	57.4	21.3-145		%REC	1	10/21/2012 1:29:49 AM
Surr: 2-Fluorobiphenyl	64.7	20-131		%REC	1	10/21/2012 1:29:49 AM
Surr: 2-Fluorophenol	53.2	11.9-130		%REC	1	10/21/2012 1:29:49 AM
Surr: 4-Terphenyl-d14	59.7	25.1-149		%REC	1	10/21/2012 1:29:49 AM
Surr: Nitrobenzene-d5	63.1	25.6-137		%REC	1	10/21/2012 1:29:49 AM
Surr: Phenol-d5	61.3	20.3-132		%REC	1	10/21/2012 1:29:49 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00791	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Toluene	0.00372	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Ethylbenzene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Xylenes, Total	ND	0.00188		mg/Kg	1	10/15/2012 3:53:08 PM
Methyl tert-butyl ether (MTBE)	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,2,4-Trimethylbenzene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,3,5-Trimethylbenzene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,2-Dichloroethane (EDC)	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,2-Dibromoethane (EDB)	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Naphthalene	ND	0.00188		mg/Kg	1	10/15/2012 3:53:08 PM
1-Methylnaphthalene	ND	0.00376		mg/Kg	1	10/15/2012 3:53:08 PM
2-Methylnaphthalene	ND	0.00376		mg/Kg	1	10/15/2012 3:53:08 PM
Acetone	0.0217	0.00939		mg/Kg	1	10/15/2012 3:53:08 PM
Bromobenzene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Bromodichloromethane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Bromoform	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Bromomethane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
2-Butanone	ND	0.00939		mg/Kg	1	10/15/2012 3:53:08 PM
Carbon tetrachloride	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Chlorobenzene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Chloroethane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Chloroform	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Chloromethane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
2-Chlorotoluene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-20 (10-12')
Collection Date: 10/11/2012 1:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Carbon disulfide	ND	0.00939		mg/Kg	1	10/15/2012 3:53:08 PM
4-Chlorotoluene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
cis-1,2-DCE	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
cis-1,3-Dichloropropene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,2-Dibromo-3-chloropropane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Dibromochloromethane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Dibromomethane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,2-Dichlorobenzene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,3-Dichlorobenzene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,4-Dichlorobenzene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Dichlorodifluoromethane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,1-Dichloroethane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,1-Dichloroethene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,2-Dichloropropane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,3-Dichloropropane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
2,2-Dichloropropane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,1-Dichloropropene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Hexachlorobutadiene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Isopropylbenzene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
4-Isopropyltoluene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Methylene chloride	ND	0.00282		mg/Kg	1	10/15/2012 3:53:08 PM
n-Butylbenzene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
2-Hexanone	ND	0.00939		mg/Kg	1	10/15/2012 3:53:08 PM
n-Propylbenzene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
sec-Butylbenzene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Styrene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
4-Methyl-2-pentanone	ND	0.00939		mg/Kg	1	10/15/2012 3:53:08 PM
tert-Butylbenzene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,1,1,2-Tetrachloroethane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,1,2,2-Tetrachloroethane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Tetrachloroethene (PCE)	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
trans-1,2-DCE	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
trans-1,3-Dichloropropene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,2,3-Trichlorobenzene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,2,4-Trichlorobenzene	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,1,1-Trichloroethane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,1,2-Trichloroethane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Trichloroethene (TCE)	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Trichlorofluoromethane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
1,2,3-Trichloropropane	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Vinyl chloride	ND	0.000939		mg/Kg	1	10/15/2012 3:53:08 PM
Surr: 1,2-Dichloroethane-d4	95.1	70-130		%REC	1	10/15/2012 3:53:08 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-20 (10-12')
Collection Date: 10/11/2012 1:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	109	70-130		%REC	1	10/15/2012 3:53:08 PM
Surr: Dibromofluoromethane	111	70-130		%REC	1	10/15/2012 3:53:08 PM
Surr: Toluene-d8	86.4	70-130		%REC	1	10/15/2012 3:53:08 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/21/2012 5:10:49 PM
Surr: BFB	93.2	70-130		%REC	1	10/21/2012 5:10:49 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-38 (0-0.5')
Collection Date: 10/11/2012 2:20:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/16/2012 4:11:59 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/16/2012 4:11:59 PM
Surr: DNOP	97.6	77.6-140		%REC	1	10/16/2012 4:11:59 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.080	0.033		mg/kg	1	10/23/2012 4:50:01 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 9:51:21 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 9:51:21 PM
Barium	360	2.0		mg/Kg	20	11/2/2012 7:45:41 AM
Beryllium	0.70	0.30		mg/Kg	2	10/25/2012 9:51:21 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 9:51:21 PM
Chromium	24	0.60		mg/Kg	2	10/25/2012 9:51:21 PM
Cobalt	3.9	0.60		mg/Kg	2	10/25/2012 9:51:21 PM
Iron	14000	500		mg/Kg	500	11/2/2012 7:58:27 AM
Lead	2.8	0.50		mg/Kg	2	10/25/2012 9:51:21 PM
Manganese	480	2.0		mg/Kg	20	11/2/2012 7:45:41 AM
Nickel	7.7	1.0		mg/Kg	2	10/25/2012 9:51:21 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 9:51:21 PM
Silver	ND	0.50		mg/Kg	2	10/25/2012 9:51:21 PM
Vanadium	17	5.0		mg/Kg	2	10/25/2012 9:51:21 PM
Zinc	34	5.0		mg/Kg	2	10/25/2012 9:51:21 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Aniline	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Anthracene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Azobenzene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Benzoic acid	ND	0.51		mg/Kg	1	10/21/2012 10:32:27 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Bis(2-ethylhexyl)phthalate	ND	0.51		mg/Kg	1	10/21/2012 10:32:27 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-38 (0-0.5')
Collection Date: 10/11/2012 2:20:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Carbazole	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
4-Chloro-3-methylphenol	ND	0.51		mg/Kg	1	10/21/2012 10:32:27 AM
4-Chloroaniline	ND	0.51		mg/Kg	1	10/21/2012 10:32:27 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/21/2012 10:32:27 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Chrysene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Di-n-butyl phthalate	ND	0.51		mg/Kg	1	10/21/2012 10:32:27 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 10:32:27 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/21/2012 10:32:27 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 10:32:27 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/21/2012 10:32:27 AM
4,6-Dinitro-2-methylphenol	ND	0.51		mg/Kg	1	10/21/2012 10:32:27 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/21/2012 10:32:27 AM
2,4-Dinitrotoluene	ND	0.51		mg/Kg	1	10/21/2012 10:32:27 AM
2,6-Dinitrotoluene	ND	0.51		mg/Kg	1	10/21/2012 10:32:27 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Fluorene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Isophorone	ND	0.51		mg/Kg	1	10/21/2012 10:32:27 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
2-Methylphenol	ND	0.51		mg/Kg	1	10/21/2012 10:32:27 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Naphthalene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
3-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 10:32:27 AM
Nitrobenzene	ND	0.51		mg/Kg	1	10/21/2012 10:32:27 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-38 (0-0.5')
Collection Date: 10/11/2012 2:20:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/21/2012 10:32:27 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/21/2012 10:32:27 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Phenol	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Pyrene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Pyridine	ND	0.51		mg/Kg	1	10/21/2012 10:32:27 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 10:32:27 AM
Surr: 2,4,6-Tribromophenol	102	21.3-145		%REC	1	10/21/2012 10:32:27 AM
Surr: 2-Fluorobiphenyl	96.5	20-131		%REC	1	10/21/2012 10:32:27 AM
Surr: 2-Fluorophenol	90.4	11.9-130		%REC	1	10/21/2012 10:32:27 AM
Surr: 4-Terphenyl-d14	86.0	25.1-149		%REC	1	10/21/2012 10:32:27 AM
Surr: Nitrobenzene-d5	97.6	25.6-137		%REC	1	10/21/2012 10:32:27 AM
Surr: Phenol-d5	87.3	20.3-132		%REC	1	10/21/2012 10:32:27 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00204	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Toluene	0.00190	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Ethylbenzene	0.00165	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Xylenes, Total	0.00901	0.00169		mg/Kg	1	10/15/2012 4:23:53 PM
Methyl tert-butyl ether (MTBE)	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,2,4-Trimethylbenzene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,3,5-Trimethylbenzene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,2-Dichloroethane (EDC)	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,2-Dibromoethane (EDB)	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Naphthalene	ND	0.00169		mg/Kg	1	10/15/2012 4:23:53 PM
1-Methylnaphthalene	ND	0.00339		mg/Kg	1	10/15/2012 4:23:53 PM
2-Methylnaphthalene	ND	0.00339		mg/Kg	1	10/15/2012 4:23:53 PM
Acetone	0.156	0.00847		mg/Kg	1	10/15/2012 4:23:53 PM
Bromobenzene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Bromodichloromethane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Bromoform	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Bromomethane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
2-Butanone	ND	0.00847		mg/Kg	1	10/15/2012 4:23:53 PM
Carbon tetrachloride	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Chlorobenzene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Chloroethane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Chloroform	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Chloromethane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
2-Chlorotoluene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-38 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/11/2012 2:20:00 PM
Lab ID: 1210692-006 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Carbon disulfide	ND	0.00847		mg/Kg	1	10/15/2012 4:23:53 PM
4-Chlorotoluene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
cis-1,2-DCE	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
cis-1,3-Dichloropropene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,2-Dibromo-3-chloropropane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Dibromochloromethane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Dibromomethane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,2-Dichlorobenzene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,3-Dichlorobenzene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,4-Dichlorobenzene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Dichlorodifluoromethane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,1-Dichloroethane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,1-Dichloroethene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,2-Dichloropropane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,3-Dichloropropane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
2,2-Dichloropropane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,1-Dichloropropene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Hexachlorobutadiene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Isopropylbenzene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
4-Isopropyltoluene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Methylene chloride	ND	0.00254		mg/Kg	1	10/15/2012 4:23:53 PM
n-Butylbenzene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
2-Hexanone	ND	0.00847		mg/Kg	1	10/15/2012 4:23:53 PM
n-Propylbenzene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
sec-Butylbenzene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Styrene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
4-Methyl-2-pentanone	ND	0.00847		mg/Kg	1	10/15/2012 4:23:53 PM
tert-Butylbenzene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,1,1,2-Tetrachloroethane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,1,2,2-Tetrachloroethane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Tetrachloroethene (PCE)	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
trans-1,2-DCE	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
trans-1,3-Dichloropropene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,2,3-Trichlorobenzene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,2,4-Trichlorobenzene	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,1,1-Trichloroethane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,1,2-Trichloroethane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Trichloroethene (TCE)	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Trichlorofluoromethane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
1,2,3-Trichloropropane	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Vinyl chloride	ND	0.000847		mg/Kg	1	10/15/2012 4:23:53 PM
Surr: 1,2-Dichloroethane-d4	93.0	70-130		%REC	1	10/15/2012 4:23:53 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-38 (0-0.5')
Collection Date: 10/11/2012 2:20:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	127	70-130		%REC	1	10/15/2012 4:23:53 PM
Surr: Dibromofluoromethane	106	70-130		%REC	1	10/15/2012 4:23:53 PM
Surr: Toluene-d8	90.5	70-130		%REC	1	10/15/2012 4:23:53 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/21/2012 5:39:04 PM
Surr: BFB	91.5	70-130		%REC	1	10/21/2012 5:39:04 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-38 (1.5-2')
Collection Date: 10/11/2012 2:30:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/16/2012 3:15:01 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/16/2012 3:15:01 PM
Surr: DNOP	95.9	77.6-140		%REC	1	10/16/2012 3:15:01 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 4:51:46 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 10:07:42 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 10:07:42 PM
Barium	81	0.20		mg/Kg	2	10/25/2012 10:07:42 PM
Beryllium	0.84	0.30		mg/Kg	2	10/25/2012 10:07:42 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 10:07:42 PM
Chromium	12	0.60		mg/Kg	2	10/25/2012 10:07:42 PM
Cobalt	4.9	0.60		mg/Kg	2	10/25/2012 10:07:42 PM
Iron	20000	500		mg/Kg	500	11/2/2012 8:03:45 AM
Lead	3.2	0.50		mg/Kg	2	10/25/2012 10:07:42 PM
Manganese	600	2.0		mg/Kg	20	11/2/2012 8:01:20 AM
Nickel	8.5	1.0		mg/Kg	2	10/25/2012 10:07:42 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 10:07:42 PM
Silver	ND	0.50		mg/Kg	2	10/25/2012 10:07:42 PM
Vanadium	30	5.0		mg/Kg	2	10/25/2012 10:07:42 PM
Zinc	18	5.0		mg/Kg	2	10/25/2012 10:07:42 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Acenaphthylene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Aniline	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Anthracene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Azobenzene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Benzoic acid	ND	1.0		mg/Kg	1	10/21/2012 8:36:22 AM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/21/2012 8:36:22 AM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-38 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/11/2012 2:30:00 PM
Lab ID: 1210692-007 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Carbazole	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 8:36:22 AM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/21/2012 8:36:22 AM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/21/2012 8:36:22 AM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Chrysene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/21/2012 8:36:22 AM
Di-n-octyl phthalate	ND	0.81		mg/Kg	1	10/21/2012 8:36:22 AM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Dibenzofuran	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/21/2012 8:36:22 AM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
2,4-Dichlorophenol	ND	0.81		mg/Kg	1	10/21/2012 8:36:22 AM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/21/2012 8:36:22 AM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 8:36:22 AM
2,4-Dinitrophenol	ND	0.81		mg/Kg	1	10/21/2012 8:36:22 AM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 8:36:22 AM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 8:36:22 AM
Fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Fluorene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Hexachloroethane	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Isophorone	ND	1.0		mg/Kg	1	10/21/2012 8:36:22 AM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
2-Methylphenol	ND	1.0		mg/Kg	1	10/21/2012 8:36:22 AM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Naphthalene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
3-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
4-Nitroaniline	ND	0.81		mg/Kg	1	10/21/2012 8:36:22 AM
Nitrobenzene	ND	1.0		mg/Kg	1	10/21/2012 8:36:22 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-38 (1.5-2')
Collection Date: 10/11/2012 2:30:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Nitrophenol	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/21/2012 8:36:22 AM
Pentachlorophenol	ND	0.81		mg/Kg	1	10/21/2012 8:36:22 AM
Phenanthrene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Phenol	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Pyrene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Pyridine	ND	1.0		mg/Kg	1	10/21/2012 8:36:22 AM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 8:36:22 AM
Surr: 2,4,6-Tribromophenol	82.3	21.3-145		%REC	1	10/21/2012 8:36:22 AM
Surr: 2-Fluorobiphenyl	82.4	20-131		%REC	1	10/21/2012 8:36:22 AM
Surr: 2-Fluorophenol	74.9	11.9-130		%REC	1	10/21/2012 8:36:22 AM
Surr: 4-Terphenyl-d14	79.4	25.1-149		%REC	1	10/21/2012 8:36:22 AM
Surr: Nitrobenzene-d5	84.4	25.6-137		%REC	1	10/21/2012 8:36:22 AM
Surr: Phenol-d5	80.7	20.3-132		%REC	1	10/21/2012 8:36:22 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00122	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Toluene	0.00114	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Ethylbenzene	0.00135	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Xylenes, Total	0.00793	0.00158		mg/Kg	1	10/15/2012 4:54:48 PM
Methyl tert-butyl ether (MTBE)	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,2,4-Trimethylbenzene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,3,5-Trimethylbenzene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,2-Dichloroethane (EDC)	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,2-Dibromoethane (EDB)	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Naphthalene	ND	0.00158		mg/Kg	1	10/15/2012 4:54:48 PM
1-Methylnaphthalene	ND	0.00316		mg/Kg	1	10/15/2012 4:54:48 PM
2-Methylnaphthalene	ND	0.00316		mg/Kg	1	10/15/2012 4:54:48 PM
Acetone	0.158	0.00789	E	mg/Kg	1	10/15/2012 4:54:48 PM
Bromobenzene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Bromodichloromethane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Bromoform	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Bromomethane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
2-Butanone	0.0138	0.00789		mg/Kg	1	10/15/2012 4:54:48 PM
Carbon tetrachloride	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Chlorobenzene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Chloroethane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Chloroform	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Chloromethane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
2-Chlorotoluene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-38 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/11/2012 2:30:00 PM
Lab ID: 1210692-007 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Carbon disulfide	ND	0.00789		mg/Kg	1	10/15/2012 4:54:48 PM
4-Chlorotoluene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
cis-1,2-DCE	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
cis-1,3-Dichloropropene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,2-Dibromo-3-chloropropane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Dibromochloromethane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Dibromomethane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,2-Dichlorobenzene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,3-Dichlorobenzene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,4-Dichlorobenzene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Dichlorodifluoromethane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,1-Dichloroethane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,1-Dichloroethene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,2-Dichloropropane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,3-Dichloropropane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
2,2-Dichloropropane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,1-Dichloropropene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Hexachlorobutadiene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Isopropylbenzene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
4-Isopropyltoluene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Methylene chloride	ND	0.00237		mg/Kg	1	10/15/2012 4:54:48 PM
n-Butylbenzene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
2-Hexanone	ND	0.00789		mg/Kg	1	10/15/2012 4:54:48 PM
n-Propylbenzene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
sec-Butylbenzene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Styrene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
4-Methyl-2-pentanone	ND	0.00789		mg/Kg	1	10/15/2012 4:54:48 PM
tert-Butylbenzene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,1,1,2-Tetrachloroethane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,1,2,2-Tetrachloroethane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Tetrachloroethene (PCE)	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
trans-1,2-DCE	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
trans-1,3-Dichloropropene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,2,3-Trichlorobenzene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,2,4-Trichlorobenzene	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,1,1-Trichloroethane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,1,2-Trichloroethane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Trichloroethene (TCE)	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Trichlorofluoromethane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
1,2,3-Trichloropropane	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Vinyl chloride	ND	0.000789		mg/Kg	1	10/15/2012 4:54:48 PM
Surr: 1,2-Dichloroethane-d4	90.1	70-130		%REC	1	10/15/2012 4:54:48 PM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-38 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/11/2012 2:30:00 PM
Lab ID: 1210692-007 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	127	70-130		%REC	1	10/15/2012 4:54:48 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	10/15/2012 4:54:48 PM
Surr: Toluene-d8	98.6	70-130		%REC	1	10/15/2012 4:54:48 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/21/2012 6:07:43 PM
Surr: BFB	93.4	70-130		%REC	1	10/21/2012 6:07:43 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-38 (6-8')
Project: SWMU NO.1
Collection Date: 10/11/2012 2:45:00 PM
Lab ID: 1210692-008 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/16/2012 11:50:24 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/16/2012 11:50:24 AM
Surr: DNOP	90.9	77.6-140		%REC	1	10/16/2012 11:50:24 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 4:57:04 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 10:15:17 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 10:15:17 PM
Barium	540	2.0		mg/Kg	20	11/2/2012 8:06:38 AM
Beryllium	0.90	0.30		mg/Kg	2	10/25/2012 10:15:17 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 10:15:17 PM
Chromium	12	0.60		mg/Kg	2	10/25/2012 10:15:17 PM
Cobalt	5.2	0.60		mg/Kg	2	10/25/2012 10:15:17 PM
Iron	22000	500		mg/Kg	500	11/2/2012 8:09:03 AM
Lead	ND	0.50		mg/Kg	2	10/25/2012 10:15:17 PM
Manganese	570	2.0		mg/Kg	20	11/2/2012 8:06:38 AM
Nickel	11	1.0		mg/Kg	2	10/25/2012 10:15:17 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 10:15:17 PM
Silver	ND	0.50		mg/Kg	2	10/25/2012 10:15:17 PM
Vanadium	26	5.0		mg/Kg	2	10/25/2012 10:15:17 PM
Zinc	22	5.0		mg/Kg	2	10/25/2012 10:15:17 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Aniline	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Anthracene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Azobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/21/2012 1:58:57 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/21/2012 1:58:57 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-38 (6-8')
Project: SWMU NO.1
Collection Date: 10/11/2012 2:45:00 PM
Lab ID: 1210692-008 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Carbazole	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 1:58:57 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/21/2012 1:58:57 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/21/2012 1:58:57 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Chrysene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/21/2012 1:58:57 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 1:58:57 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/21/2012 1:58:57 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 1:58:57 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/21/2012 1:58:57 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 1:58:57 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/21/2012 1:58:57 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 1:58:57 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 1:58:57 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Fluorene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Isophorone	ND	0.50		mg/Kg	1	10/21/2012 1:58:57 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/21/2012 1:58:57 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Naphthalene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
3-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 1:58:57 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/21/2012 1:58:57 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-38 (6-8')
Project: SWMU NO.1
Collection Date: 10/11/2012 2:45:00 PM
Lab ID: 1210692-008 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/21/2012 1:58:57 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/21/2012 1:58:57 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Phenol	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Pyrene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Pyridine	ND	0.50		mg/Kg	1	10/21/2012 1:58:57 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 1:58:57 AM
Surr: 2,4,6-Tribromophenol	70.4	21.3-145		%REC	1	10/21/2012 1:58:57 AM
Surr: 2-Fluorobiphenyl	82.7	20-131		%REC	1	10/21/2012 1:58:57 AM
Surr: 2-Fluorophenol	74.2	11.9-130		%REC	1	10/21/2012 1:58:57 AM
Surr: 4-Terphenyl-d14	70.8	25.1-149		%REC	1	10/21/2012 1:58:57 AM
Surr: Nitrobenzene-d5	89.8	25.6-137		%REC	1	10/21/2012 1:58:57 AM
Surr: Phenol-d5	76.7	20.3-132		%REC	1	10/21/2012 1:58:57 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.0114	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Toluene	0.00448	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Ethylbenzene	0.00107	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Xylenes, Total	0.00276	0.00160		mg/Kg	1	10/15/2012 5:25:42 PM
Methyl tert-butyl ether (MTBE)	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,2,4-Trimethylbenzene	0.00123	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,3,5-Trimethylbenzene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,2-Dichloroethane (EDC)	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,2-Dibromoethane (EDB)	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Naphthalene	ND	0.00160		mg/Kg	1	10/15/2012 5:25:42 PM
1-Methylnaphthalene	ND	0.00320		mg/Kg	1	10/15/2012 5:25:42 PM
2-Methylnaphthalene	ND	0.00320		mg/Kg	1	10/15/2012 5:25:42 PM
Acetone	0.0250	0.00801		mg/Kg	1	10/15/2012 5:25:42 PM
Bromobenzene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Bromodichloromethane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Bromoform	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Bromomethane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
2-Butanone	ND	0.00801		mg/Kg	1	10/15/2012 5:25:42 PM
Carbon tetrachloride	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Chlorobenzene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Chloroethane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Chloroform	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Chloromethane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
2-Chlorotoluene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-38 (6-8')
Collection Date: 10/11/2012 2:45:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Carbon disulfide	ND	0.00801		mg/Kg	1	10/15/2012 5:25:42 PM
4-Chlorotoluene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
cis-1,2-DCE	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
cis-1,3-Dichloropropene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,2-Dibromo-3-chloropropane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Dibromochloromethane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Dibromomethane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,2-Dichlorobenzene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,3-Dichlorobenzene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,4-Dichlorobenzene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Dichlorodifluoromethane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,1-Dichloroethane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,1-Dichloroethene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,2-Dichloropropane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,3-Dichloropropane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
2,2-Dichloropropane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,1-Dichloropropene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Hexachlorobutadiene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Isopropylbenzene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
4-Isopropyltoluene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Methylene chloride	ND	0.00240		mg/Kg	1	10/15/2012 5:25:42 PM
n-Butylbenzene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
2-Hexanone	ND	0.00801		mg/Kg	1	10/15/2012 5:25:42 PM
n-Propylbenzene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
sec-Butylbenzene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Styrene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
4-Methyl-2-pentanone	ND	0.00801		mg/Kg	1	10/15/2012 5:25:42 PM
tert-Butylbenzene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,1,1,2-Tetrachloroethane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,1,2,2-Tetrachloroethane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Tetrachloroethene (PCE)	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
trans-1,2-DCE	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
trans-1,3-Dichloropropene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,2,3-Trichlorobenzene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,2,4-Trichlorobenzene	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,1,1-Trichloroethane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,1,2-Trichloroethane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Trichloroethene (TCE)	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Trichlorofluoromethane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
1,2,3-Trichloropropane	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Vinyl chloride	ND	0.000801		mg/Kg	1	10/15/2012 5:25:42 PM
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	1	10/15/2012 5:25:42 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-38 (6-8')
Project: SWMU NO.1
Collection Date: 10/11/2012 2:45:00 PM
Lab ID: 1210692-008 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	97.3	70-130		%REC	1	10/15/2012 5:25:42 PM
Surr: Dibromofluoromethane	107	70-130		%REC	1	10/15/2012 5:25:42 PM
Surr: Toluene-d8	103	70-130		%REC	1	10/15/2012 5:25:42 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/21/2012 6:36:19 PM
Surr: BFB	86.4	70-130		%REC	1	10/21/2012 6:36:19 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-27 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/12/2012 9:00:00 AM
Lab ID: 1210692-009 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/16/2012 4:37:23 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/16/2012 4:37:23 PM
Surr: DNOP	83.3	77.6-140		%REC	1	10/16/2012 4:37:23 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.054	0.033		mg/kg	1	10/23/2012 4:58:51 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 10:21:12 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 10:21:12 PM
Barium	560	2.0		mg/Kg	20	11/2/2012 8:11:40 AM
Beryllium	0.60	0.30		mg/Kg	2	10/25/2012 10:21:12 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 10:21:12 PM
Chromium	8.0	0.60		mg/Kg	2	10/25/2012 10:21:12 PM
Cobalt	2.9	0.60		mg/Kg	2	10/25/2012 10:21:12 PM
Iron	11000	500		mg/Kg	500	11/2/2012 8:14:06 AM
Lead	1.4	0.50		mg/Kg	2	10/25/2012 10:21:12 PM
Manganese	470	2.0		mg/Kg	20	11/2/2012 8:11:40 AM
Nickel	5.8	1.0		mg/Kg	2	10/25/2012 10:21:12 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 10:21:12 PM
Silver	ND	0.50		mg/Kg	2	10/25/2012 10:21:12 PM
Vanadium	17	5.0		mg/Kg	2	10/25/2012 10:21:12 PM
Zinc	15	5.0		mg/Kg	2	10/25/2012 10:21:12 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Acenaphthylene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Aniline	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Anthracene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Azobenzene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Benzoic acid	ND	1.0		mg/Kg	1	10/21/2012 9:05:15 AM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/21/2012 9:05:15 AM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-27 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/12/2012 9:00:00 AM
Lab ID: 1210692-009 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Carbazole	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 9:05:15 AM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/21/2012 9:05:15 AM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/21/2012 9:05:15 AM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Chrysene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/21/2012 9:05:15 AM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/21/2012 9:05:15 AM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Dibenzofuran	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
3,3´-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/21/2012 9:05:15 AM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/21/2012 9:05:15 AM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/21/2012 9:05:15 AM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 9:05:15 AM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/21/2012 9:05:15 AM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 9:05:15 AM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 9:05:15 AM
Fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Fluorene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Hexachloroethane	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Isophorone	ND	1.0		mg/Kg	1	10/21/2012 9:05:15 AM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
2-Methylphenol	ND	1.0		mg/Kg	1	10/21/2012 9:05:15 AM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Naphthalene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
3-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/21/2012 9:05:15 AM
Nitrobenzene	ND	1.0		mg/Kg	1	10/21/2012 9:05:15 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-009 **Matrix:** SOIL

Client Sample ID: SWMU 1-27 (0-0.5')
Collection Date: 10/12/2012 9:00:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Nitrophenol	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/21/2012 9:05:15 AM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/21/2012 9:05:15 AM
Phenanthrene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Phenol	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Pyrene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Pyridine	ND	1.0		mg/Kg	1	10/21/2012 9:05:15 AM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 9:05:15 AM
Surr: 2,4,6-Tribromophenol	78.1	21.3-145		%REC	1	10/21/2012 9:05:15 AM
Surr: 2-Fluorobiphenyl	91.7	20-131		%REC	1	10/21/2012 9:05:15 AM
Surr: 2-Fluorophenol	72.8	11.9-130		%REC	1	10/21/2012 9:05:15 AM
Surr: 4-Terphenyl-d14	84.8	25.1-149		%REC	1	10/21/2012 9:05:15 AM
Surr: Nitrobenzene-d5	89.6	25.6-137		%REC	1	10/21/2012 9:05:15 AM
Surr: Phenol-d5	78.1	20.3-132		%REC	1	10/21/2012 9:05:15 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00213	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Toluene	0.0114	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Ethylbenzene	0.0636	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Xylenes, Total	0.447	0.00187	E	mg/Kg	1	10/15/2012 11:04:19 PM
Methyl tert-butyl ether (MTBE)	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,2,4-Trimethylbenzene	0.00844	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,3,5-Trimethylbenzene	0.00334	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,2-Dichloroethane (EDC)	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,2-Dibromoethane (EDB)	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Naphthalene	ND	0.00187		mg/Kg	1	10/15/2012 11:04:19 PM
1-Methylnaphthalene	ND	0.00375		mg/Kg	1	10/15/2012 11:04:19 PM
2-Methylnaphthalene	ND	0.00375		mg/Kg	1	10/15/2012 11:04:19 PM
Acetone	2.44	0.00937	E	mg/Kg	1	10/15/2012 11:04:19 PM
Bromobenzene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Bromodichloromethane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Bromoform	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Bromomethane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
2-Butanone	0.0722	0.00937		mg/Kg	1	10/15/2012 11:04:19 PM
Carbon tetrachloride	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Chlorobenzene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Chloroethane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Chloroform	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Chloromethane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
2-Chlorotoluene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-27 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/12/2012 9:00:00 AM
Lab ID: 1210692-009 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Carbon disulfide	ND	0.00937		mg/Kg	1	10/15/2012 11:04:19 PM
4-Chlorotoluene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
cis-1,2-DCE	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
cis-1,3-Dichloropropene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,2-Dibromo-3-chloropropane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Dibromochloromethane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Dibromomethane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,2-Dichlorobenzene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,3-Dichlorobenzene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,4-Dichlorobenzene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Dichlorodifluoromethane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,1-Dichloroethane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,1-Dichloroethene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,2-Dichloropropane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,3-Dichloropropane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
2,2-Dichloropropane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,1-Dichloropropene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Hexachlorobutadiene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Isopropylbenzene	0.00310	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
4-Isopropyltoluene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Methylene chloride	ND	0.00281		mg/Kg	1	10/15/2012 11:04:19 PM
n-Butylbenzene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
2-Hexanone	ND	0.00937		mg/Kg	1	10/15/2012 11:04:19 PM
n-Propylbenzene	0.00173	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
sec-Butylbenzene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Styrene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
4-Methyl-2-pentanone	ND	0.00937		mg/Kg	1	10/15/2012 11:04:19 PM
tert-Butylbenzene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,1,1,2-Tetrachloroethane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,1,2,2-Tetrachloroethane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Tetrachloroethene (PCE)	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
trans-1,2-DCE	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
trans-1,3-Dichloropropene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,2,3-Trichlorobenzene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,2,4-Trichlorobenzene	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,1,1-Trichloroethane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,1,2-Trichloroethane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Trichloroethene (TCE)	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Trichlorofluoromethane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
1,2,3-Trichloropropane	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Vinyl chloride	ND	0.000937		mg/Kg	1	10/15/2012 11:04:19 PM
Surr: 1,2-Dichloroethane-d4	88.0	70-130		%REC	1	10/15/2012 11:04:19 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-27 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/12/2012 9:00:00 AM
Lab ID: 1210692-009 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	109	70-130		%REC	1	10/15/2012 11:04:19 PM
Surr: Dibromofluoromethane	97.0	70-130		%REC	1	10/15/2012 11:04:19 PM
Surr: Toluene-d8	91.0	70-130		%REC	1	10/15/2012 11:04:19 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	9.3	5.0		mg/Kg	1	10/21/2012 7:04:38 PM
Surr: BFB	94.8	70-130		%REC	1	10/21/2012 7:04:38 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-010 **Matrix:** SOIL

Client Sample ID: SWMU 1-27 (1.5-2')
Collection Date: 10/12/2012 9:15:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/16/2012 12:12:00 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/16/2012 12:12:00 PM
Surr: DNOP	97.4	77.6-140		%REC	1	10/16/2012 12:12:00 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 5:00:37 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	13		mg/Kg	5	11/2/2012 8:17:00 AM
Arsenic	ND	13		mg/Kg	5	11/2/2012 8:17:00 AM
Barium	750	5.0		mg/Kg	50	11/2/2012 10:02:03 AM
Beryllium	ND	0.75		mg/Kg	5	11/2/2012 8:17:00 AM
Cadmium	ND	0.50		mg/Kg	5	11/2/2012 8:17:00 AM
Chromium	8.0	1.5		mg/Kg	5	11/2/2012 8:17:00 AM
Cobalt	4.3	1.5		mg/Kg	5	11/2/2012 8:17:00 AM
Iron	11000	500		mg/Kg	500	11/2/2012 10:06:05 AM
Lead	2.7	1.3		mg/Kg	5	11/2/2012 8:17:00 AM
Manganese	1300	5.0		mg/Kg	50	11/2/2012 10:02:03 AM
Nickel	6.0	2.5		mg/Kg	5	11/2/2012 8:17:00 AM
Selenium	ND	13		mg/Kg	5	11/2/2012 8:17:00 AM
Silver	ND	1.3		mg/Kg	5	11/2/2012 8:17:00 AM
Vanadium	20	13		mg/Kg	5	11/2/2012 8:17:00 AM
Zinc	13	13		mg/Kg	5	11/2/2012 8:17:00 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Aniline	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Anthracene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Azobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/21/2012 12:59:09 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/21/2012 12:59:09 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-27 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/12/2012 9:15:00 AM
Lab ID: 1210692-010 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Carbazole	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 12:59:09 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/21/2012 12:59:09 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/21/2012 12:59:09 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Chrysene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/21/2012 12:59:09 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 12:59:09 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/21/2012 12:59:09 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 12:59:09 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/21/2012 12:59:09 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 12:59:09 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/21/2012 12:59:09 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 12:59:09 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 12:59:09 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Fluorene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Isophorone	ND	0.50		mg/Kg	1	10/21/2012 12:59:09 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/21/2012 12:59:09 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Naphthalene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
3-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 12:59:09 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/21/2012 12:59:09 PM

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-010 **Matrix:** SOIL

Client Sample ID: SWMU 1-27 (1.5-2')
Collection Date: 10/12/2012 9:15:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/21/2012 12:59:09 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/21/2012 12:59:09 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Phenol	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Pyrene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Pyridine	ND	0.50		mg/Kg	1	10/21/2012 12:59:09 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 12:59:09 PM
Surr: 2,4,6-Tribromophenol	93.4	21.3-145		%REC	1	10/21/2012 12:59:09 PM
Surr: 2-Fluorobiphenyl	86.2	20-131		%REC	1	10/21/2012 12:59:09 PM
Surr: 2-Fluorophenol	92.9	11.9-130		%REC	1	10/21/2012 12:59:09 PM
Surr: 4-Terphenyl-d14	73.6	25.1-149		%REC	1	10/21/2012 12:59:09 PM
Surr: Nitrobenzene-d5	91.3	25.6-137		%REC	1	10/21/2012 12:59:09 PM
Surr: Phenol-d5	90.3	20.3-132		%REC	1	10/21/2012 12:59:09 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00130	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Toluene	0.00240	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Ethylbenzene	0.00135	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Xylenes, Total	0.00781	0.00150		mg/Kg	1	10/15/2012 5:56:34 PM
Methyl tert-butyl ether (MTBE)	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,2,4-Trimethylbenzene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,3,5-Trimethylbenzene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,2-Dichloroethane (EDC)	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,2-Dibromoethane (EDB)	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Naphthalene	ND	0.00150		mg/Kg	1	10/15/2012 5:56:34 PM
1-Methylnaphthalene	ND	0.00301		mg/Kg	1	10/15/2012 5:56:34 PM
2-Methylnaphthalene	ND	0.00301		mg/Kg	1	10/15/2012 5:56:34 PM
Acetone	0.169	0.00752	E	mg/Kg	1	10/15/2012 5:56:34 PM
Bromobenzene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Bromodichloromethane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Bromoform	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Bromomethane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
2-Butanone	ND	0.00752		mg/Kg	1	10/15/2012 5:56:34 PM
Carbon tetrachloride	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Chlorobenzene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Chloroethane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Chloroform	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Chloromethane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
2-Chlorotoluene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-010 **Matrix:** SOIL

Client Sample ID: SWMU 1-27 (1.5-2')
Collection Date: 10/12/2012 9:15:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Carbon disulfide	ND	0.00752		mg/Kg	1	10/15/2012 5:56:34 PM
4-Chlorotoluene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
cis-1,2-DCE	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
cis-1,3-Dichloropropene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,2-Dibromo-3-chloropropane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Dibromochloromethane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Dibromomethane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,2-Dichlorobenzene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,3-Dichlorobenzene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,4-Dichlorobenzene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Dichlorodifluoromethane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,1-Dichloroethane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,1-Dichloroethene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,2-Dichloropropane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,3-Dichloropropane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
2,2-Dichloropropane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,1-Dichloropropene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Hexachlorobutadiene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Isopropylbenzene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
4-Isopropyltoluene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Methylene chloride	ND	0.00226		mg/Kg	1	10/15/2012 5:56:34 PM
n-Butylbenzene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
2-Hexanone	ND	0.00752		mg/Kg	1	10/15/2012 5:56:34 PM
n-Propylbenzene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
sec-Butylbenzene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Styrene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
4-Methyl-2-pentanone	ND	0.00752		mg/Kg	1	10/15/2012 5:56:34 PM
tert-Butylbenzene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,1,1,2-Tetrachloroethane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,1,2,2-Tetrachloroethane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Tetrachloroethene (PCE)	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
trans-1,2-DCE	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
trans-1,3-Dichloropropene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,2,3-Trichlorobenzene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,2,4-Trichlorobenzene	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,1,1-Trichloroethane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,1,2-Trichloroethane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Trichloroethene (TCE)	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Trichlorofluoromethane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
1,2,3-Trichloropropane	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Vinyl chloride	ND	0.000752		mg/Kg	1	10/15/2012 5:56:34 PM
Surr: 1,2-Dichloroethane-d4	94.7	70-130		%REC	1	10/15/2012 5:56:34 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-27 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/12/2012 9:15:00 AM
Lab ID: 1210692-010 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	94.3	70-130		%REC	1	10/15/2012 5:56:34 PM
Surr: Dibromofluoromethane	103	70-130		%REC	1	10/15/2012 5:56:34 PM
Surr: Toluene-d8	99.8	70-130		%REC	1	10/15/2012 5:56:34 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/21/2012 7:32:58 PM
Surr: BFB	89.0	70-130		%REC	1	10/21/2012 7:32:58 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-28 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/12/2012 9:50:00 AM
Lab ID: 1210692-011 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	27	10		mg/Kg	1	10/17/2012 11:25:46 AM
Motor Oil Range Organics (MRO)	53	51		mg/Kg	1	10/17/2012 11:25:46 AM
Surr: DNOP	92.3	77.6-140		%REC	1	10/17/2012 11:25:46 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.67	0.16		mg/kg	5	10/23/2012 7:09:55 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 10:32:52 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 10:32:52 PM
Barium	490	2.0		mg/Kg	20	11/2/2012 8:19:27 AM
Beryllium	0.70	0.30		mg/Kg	2	10/25/2012 10:32:52 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 10:32:52 PM
Chromium	10	0.60		mg/Kg	2	10/25/2012 10:32:52 PM
Cobalt	3.7	0.60		mg/Kg	2	10/25/2012 10:32:52 PM
Iron	13000	500		mg/Kg	500	11/2/2012 8:24:30 AM
Lead	2.6	0.50		mg/Kg	2	10/25/2012 10:32:52 PM
Manganese	520	2.0		mg/Kg	20	11/2/2012 8:19:27 AM
Nickel	7.1	1.0		mg/Kg	2	10/25/2012 10:32:52 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 10:32:52 PM
Silver	ND	0.50		mg/Kg	2	10/25/2012 10:32:52 PM
Vanadium	18	5.0		mg/Kg	2	10/25/2012 10:32:52 PM
Zinc	19	5.0		mg/Kg	2	10/25/2012 10:32:52 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Acenaphthylene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Aniline	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Anthracene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Azobenzene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Benzoic acid	ND	1.0		mg/Kg	1	10/21/2012 2:27:36 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/21/2012 2:27:36 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-011 **Matrix:** SOIL

Client Sample ID: SWMU 1-28 (0-0.5')
Collection Date: 10/12/2012 9:50:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Carbazole	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 2:27:36 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/21/2012 2:27:36 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/21/2012 2:27:36 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Chrysene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/21/2012 2:27:36 PM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/21/2012 2:27:36 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Dibenzofuran	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/21/2012 2:27:36 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/21/2012 2:27:36 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/21/2012 2:27:36 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 2:27:36 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/21/2012 2:27:36 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 2:27:36 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 2:27:36 PM
Fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Fluorene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Hexachloroethane	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Isophorone	ND	1.0		mg/Kg	1	10/21/2012 2:27:36 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
2-Methylphenol	ND	1.0		mg/Kg	1	10/21/2012 2:27:36 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Naphthalene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
3-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/21/2012 2:27:36 PM
Nitrobenzene	ND	1.0		mg/Kg	1	10/21/2012 2:27:36 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-28 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/12/2012 9:50:00 AM
Lab ID: 1210692-011 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Nitrophenol	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/21/2012 2:27:36 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/21/2012 2:27:36 PM
Phenanthrene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Phenol	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Pyrene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Pyridine	ND	1.0		mg/Kg	1	10/21/2012 2:27:36 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 2:27:36 PM
Surr: 2,4,6-Tribromophenol	92.9	21.3-145		%REC	1	10/21/2012 2:27:36 PM
Surr: 2-Fluorobiphenyl	96.6	20-131		%REC	1	10/21/2012 2:27:36 PM
Surr: 2-Fluorophenol	84.7	11.9-130		%REC	1	10/21/2012 2:27:36 PM
Surr: 4-Terphenyl-d14	90.5	25.1-149		%REC	1	10/21/2012 2:27:36 PM
Surr: Nitrobenzene-d5	100	25.6-137		%REC	1	10/21/2012 2:27:36 PM
Surr: Phenol-d5	91.8	20.3-132		%REC	1	10/21/2012 2:27:36 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00299	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Toluene	0.00473	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Ethylbenzene	0.00180	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Xylenes, Total	0.00910	0.00202		mg/Kg	1	10/15/2012 6:27:22 PM
Methyl tert-butyl ether (MTBE)	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,2,4-Trimethylbenzene	0.00209	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,3,5-Trimethylbenzene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,2-Dichloroethane (EDC)	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,2-Dibromoethane (EDB)	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Naphthalene	ND	0.00202		mg/Kg	1	10/15/2012 6:27:22 PM
1-Methylnaphthalene	ND	0.00405		mg/Kg	1	10/15/2012 6:27:22 PM
2-Methylnaphthalene	ND	0.00405		mg/Kg	1	10/15/2012 6:27:22 PM
Acetone	0.135	0.0101		mg/Kg	1	10/15/2012 6:27:22 PM
Bromobenzene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Bromodichloromethane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Bromoform	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Bromomethane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
2-Butanone	0.0161	0.0101		mg/Kg	1	10/15/2012 6:27:22 PM
Carbon tetrachloride	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Chlorobenzene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Chloroethane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Chloroform	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Chloromethane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
2-Chlorotoluene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-28 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/12/2012 9:50:00 AM
Lab ID: 1210692-011 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Carbon disulfide	ND	0.0101		mg/Kg	1	10/15/2012 6:27:22 PM
4-Chlorotoluene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
cis-1,2-DCE	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
cis-1,3-Dichloropropene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,2-Dibromo-3-chloropropane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Dibromochloromethane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Dibromomethane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,2-Dichlorobenzene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,3-Dichlorobenzene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,4-Dichlorobenzene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Dichlorodifluoromethane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,1-Dichloroethane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,1-Dichloroethene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,2-Dichloropropane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,3-Dichloropropane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
2,2-Dichloropropane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,1-Dichloropropene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Hexachlorobutadiene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Isopropylbenzene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
4-Isopropyltoluene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Methylene chloride	ND	0.00303		mg/Kg	1	10/15/2012 6:27:22 PM
n-Butylbenzene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
2-Hexanone	ND	0.0101		mg/Kg	1	10/15/2012 6:27:22 PM
n-Propylbenzene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
sec-Butylbenzene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Styrene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
4-Methyl-2-pentanone	ND	0.0101		mg/Kg	1	10/15/2012 6:27:22 PM
tert-Butylbenzene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,1,1,2-Tetrachloroethane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,1,2,2-Tetrachloroethane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Tetrachloroethene (PCE)	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
trans-1,2-DCE	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
trans-1,3-Dichloropropene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,2,3-Trichlorobenzene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,2,4-Trichlorobenzene	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,1,1-Trichloroethane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,1,2-Trichloroethane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Trichloroethene (TCE)	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Trichlorofluoromethane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
1,2,3-Trichloropropane	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Vinyl chloride	ND	0.00101		mg/Kg	1	10/15/2012 6:27:22 PM
Surr: 1,2-Dichloroethane-d4	96.7	70-130		%REC	1	10/15/2012 6:27:22 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-011 **Matrix:** SOIL

Client Sample ID: SWMU 1-28 (0-0.5')
Collection Date: 10/12/2012 9:50:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	108	70-130		%REC	1	10/15/2012 6:27:22 PM
Surr: Dibromofluoromethane	109	70-130		%REC	1	10/15/2012 6:27:22 PM
Surr: Toluene-d8	99.5	70-130		%REC	1	10/15/2012 6:27:22 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/21/2012 8:01:27 PM
Surr: BFB	90.4	70-130		%REC	1	10/21/2012 8:01:27 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-012 **Matrix:** SOIL

Client Sample ID: SWMU 1-28 (1.5-2')
Collection Date: 10/12/2012 10:10:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/16/2012 12:33:45 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/16/2012 12:33:45 PM
Surr: DNOP	92.8	77.6-140		%REC	1	10/16/2012 12:33:45 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 5:04:21 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 10:48:56 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 10:48:56 PM
Barium	570	2.0		mg/Kg	20	11/2/2012 8:36:09 AM
Beryllium	0.41	0.30		mg/Kg	2	10/25/2012 10:48:56 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 10:48:56 PM
Chromium	5.2	0.60		mg/Kg	2	10/25/2012 10:48:56 PM
Cobalt	2.7	0.60		mg/Kg	2	10/25/2012 10:48:56 PM
Iron	8800	500		mg/Kg	500	11/2/2012 8:38:33 AM
Lead	1.4	0.50		mg/Kg	2	10/25/2012 10:48:56 PM
Manganese	430	2.0		mg/Kg	20	11/2/2012 8:36:09 AM
Nickel	3.7	1.0		mg/Kg	2	10/25/2012 10:48:56 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 10:48:56 PM
Silver	ND	0.50		mg/Kg	2	10/25/2012 10:48:56 PM
Vanadium	12	5.0		mg/Kg	2	10/25/2012 10:48:56 PM
Zinc	8.8	5.0		mg/Kg	2	10/25/2012 10:48:56 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Aniline	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Anthracene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Azobenzene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/21/2012 2:57:01 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/21/2012 2:57:01 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-012 **Matrix:** SOIL

Client Sample ID: SWMU 1-28 (1.5-2')
Collection Date: 10/12/2012 10:10:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Carbazole	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 2:57:01 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/21/2012 2:57:01 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/21/2012 2:57:01 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Chrysene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/21/2012 2:57:01 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 2:57:01 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/21/2012 2:57:01 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 2:57:01 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/21/2012 2:57:01 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 2:57:01 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/21/2012 2:57:01 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 2:57:01 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 2:57:01 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Fluorene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Isophorone	ND	0.50		mg/Kg	1	10/21/2012 2:57:01 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/21/2012 2:57:01 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Naphthalene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
3-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 2:57:01 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/21/2012 2:57:01 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-012 **Matrix:** SOIL

Client Sample ID: SWMU 1-28 (1.5-2')
Collection Date: 10/12/2012 10:10:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/21/2012 2:57:01 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/21/2012 2:57:01 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Phenol	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Pyrene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Pyridine	ND	0.50		mg/Kg	1	10/21/2012 2:57:01 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 2:57:01 AM
Surr: 2,4,6-Tribromophenol	90.2	21.3-145		%REC	1	10/21/2012 2:57:01 AM
Surr: 2-Fluorobiphenyl	87.9	20-131		%REC	1	10/21/2012 2:57:01 AM
Surr: 2-Fluorophenol	86.7	11.9-130		%REC	1	10/21/2012 2:57:01 AM
Surr: 4-Terphenyl-d14	85.4	25.1-149		%REC	1	10/21/2012 2:57:01 AM
Surr: Nitrobenzene-d5	93.5	25.6-137		%REC	1	10/21/2012 2:57:01 AM
Surr: Phenol-d5	90.6	20.3-132		%REC	1	10/21/2012 2:57:01 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	2.53	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Toluene	3.54	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Ethylbenzene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Xylenes, Total	2.38	2.03		mg/Kg	1	10/15/2012 6:58:08 PM
Methyl tert-butyl ether (MTBE)	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,2,4-Trimethylbenzene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,3,5-Trimethylbenzene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,2-Dichloroethane (EDC)	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,2-Dibromoethane (EDB)	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Naphthalene	ND	2.03		mg/Kg	1	10/15/2012 6:58:08 PM
1-Methylnaphthalene	ND	4.05		mg/Kg	1	10/15/2012 6:58:08 PM
2-Methylnaphthalene	ND	4.05		mg/Kg	1	10/15/2012 6:58:08 PM
Acetone	54.1	10.1		mg/Kg	1	10/15/2012 6:58:08 PM
Bromobenzene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Bromodichloromethane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Bromoform	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Bromomethane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
2-Butanone	ND	10.1		mg/Kg	1	10/15/2012 6:58:08 PM
Carbon tetrachloride	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Chlorobenzene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Chloroethane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Chloroform	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Chloromethane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
2-Chlorotoluene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-012 **Matrix:** SOIL

Client Sample ID: SWMU 1-28 (1.5-2')
Collection Date: 10/12/2012 10:10:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Carbon disulfide	ND	10.1		mg/Kg	1	10/15/2012 6:58:08 PM
4-Chlorotoluene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
cis-1,2-DCE	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
cis-1,3-Dichloropropene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,2-Dibromo-3-chloropropane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Dibromochloromethane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Dibromomethane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,2-Dichlorobenzene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,3-Dichlorobenzene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,4-Dichlorobenzene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Dichlorodifluoromethane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,1-Dichloroethane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,1-Dichloroethene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,2-Dichloropropane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,3-Dichloropropane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
2,2-Dichloropropane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,1-Dichloropropene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Hexachlorobutadiene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Isopropylbenzene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
4-Isopropyltoluene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Methylene chloride	ND	3.04		mg/Kg	1	10/15/2012 6:58:08 PM
n-Butylbenzene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
2-Hexanone	ND	10.1		mg/Kg	1	10/15/2012 6:58:08 PM
n-Propylbenzene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
sec-Butylbenzene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Styrene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
4-Methyl-2-pentanone	ND	10.1		mg/Kg	1	10/15/2012 6:58:08 PM
tert-Butylbenzene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,1,1,2-Tetrachloroethane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,1,2,2-Tetrachloroethane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Tetrachloroethene (PCE)	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
trans-1,2-DCE	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
trans-1,3-Dichloropropene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,2,3-Trichlorobenzene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,2,4-Trichlorobenzene	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,1,1-Trichloroethane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,1,2-Trichloroethane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Trichloroethene (TCE)	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Trichlorofluoromethane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
1,2,3-Trichloropropane	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Vinyl chloride	ND	1.01		mg/Kg	1	10/15/2012 6:58:08 PM
Surr: 1,2-Dichloroethane-d4	87.7	70-130		%REC	1	10/15/2012 6:58:08 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-28 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/12/2012 10:10:00 AM
Lab ID: 1210692-012 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	10/15/2012 6:58:08 PM
Surr: Dibromofluoromethane	96.7	70-130		%REC	1	10/15/2012 6:58:08 PM
Surr: Toluene-d8	99.2	70-130		%REC	1	10/15/2012 6:58:08 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/21/2012 8:29:46 PM
Surr: BFB	94.2	70-130		%REC	1	10/21/2012 8:29:46 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-013 **Matrix:** SOIL

Client Sample ID: SWMU 1-28 (1.5-2') DUP
Collection Date: 10/12/2012 10:10:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/16/2012 12:55:28 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/16/2012 12:55:28 PM
Surr: DNOP	95.2	77.6-140		%REC	1	10/16/2012 12:55:28 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 5:06:09 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	12		mg/Kg	5	11/2/2012 8:41:27 AM
Arsenic	ND	12		mg/Kg	5	11/2/2012 8:41:27 AM
Barium	630	2.0		mg/Kg	20	11/2/2012 10:08:56 AM
Beryllium	ND	0.75		mg/Kg	5	11/2/2012 8:41:27 AM
Cadmium	ND	0.50		mg/Kg	5	11/2/2012 8:41:27 AM
Chromium	6.0	1.5		mg/Kg	5	11/2/2012 8:41:27 AM
Cobalt	4.1	1.5		mg/Kg	5	11/2/2012 8:41:27 AM
Iron	10000	500		mg/Kg	500	11/2/2012 10:11:20 AM
Lead	3.1	1.2		mg/Kg	5	11/2/2012 8:41:27 AM
Manganese	680	2.0		mg/Kg	20	11/2/2012 10:08:56 AM
Nickel	4.8	2.5		mg/Kg	5	11/2/2012 8:41:27 AM
Selenium	ND	12		mg/Kg	5	11/2/2012 8:41:27 AM
Silver	ND	1.2		mg/Kg	5	11/2/2012 8:41:27 AM
Vanadium	22	12		mg/Kg	5	11/2/2012 8:41:27 AM
Zinc	ND	12		mg/Kg	5	11/2/2012 8:41:27 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Aniline	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Anthracene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Azobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/21/2012 3:25:59 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/21/2012 3:25:59 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-013 **Matrix:** SOIL

Client Sample ID: SWMU 1-28 (1.5-2') DUP
Collection Date: 10/12/2012 10:10:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Carbazole	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 3:25:59 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/21/2012 3:25:59 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/21/2012 3:25:59 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Chrysene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/21/2012 3:25:59 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 3:25:59 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/21/2012 3:25:59 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 3:25:59 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/21/2012 3:25:59 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 3:25:59 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/21/2012 3:25:59 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 3:25:59 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 3:25:59 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Fluorene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Isophorone	ND	0.50		mg/Kg	1	10/21/2012 3:25:59 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/21/2012 3:25:59 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Naphthalene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
3-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 3:25:59 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/21/2012 3:25:59 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-013 **Matrix:** SOIL

Client Sample ID: SWMU 1-28 (1.5-2') DUP
Collection Date: 10/12/2012 10:10:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/21/2012 3:25:59 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/21/2012 3:25:59 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Phenol	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Pyrene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Pyridine	ND	0.50		mg/Kg	1	10/21/2012 3:25:59 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 3:25:59 AM
Surr: 2,4,6-Tribromophenol	90.5	21.3-145		%REC	1	10/21/2012 3:25:59 AM
Surr: 2-Fluorobiphenyl	89.6	20-131		%REC	1	10/21/2012 3:25:59 AM
Surr: 2-Fluorophenol	84.6	11.9-130		%REC	1	10/21/2012 3:25:59 AM
Surr: 4-Terphenyl-d14	80.7	25.1-149		%REC	1	10/21/2012 3:25:59 AM
Surr: Nitrobenzene-d5	92.6	25.6-137		%REC	1	10/21/2012 3:25:59 AM
Surr: Phenol-d5	86.9	20.3-132		%REC	1	10/21/2012 3:25:59 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	2.48	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Toluene	2.86	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Ethylbenzene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Xylenes, Total	1.64	1.57		mg/Kg	1	10/15/2012 7:28:52 PM
Methyl tert-butyl ether (MTBE)	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,2,4-Trimethylbenzene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,3,5-Trimethylbenzene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,2-Dichloroethane (EDC)	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,2-Dibromoethane (EDB)	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Naphthalene	ND	1.57		mg/Kg	1	10/15/2012 7:28:52 PM
1-Methylnaphthalene	ND	3.15		mg/Kg	1	10/15/2012 7:28:52 PM
2-Methylnaphthalene	ND	3.15		mg/Kg	1	10/15/2012 7:28:52 PM
Acetone	34.8	7.87		mg/Kg	1	10/15/2012 7:28:52 PM
Bromobenzene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Bromodichloromethane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Bromoform	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Bromomethane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
2-Butanone	ND	7.87		mg/Kg	1	10/15/2012 7:28:52 PM
Carbon tetrachloride	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Chlorobenzene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Chloroethane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Chloroform	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Chloromethane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
2-Chlorotoluene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-013 **Matrix:** SOIL

Client Sample ID: SWMU 1-28 (1.5-2') DUP
Collection Date: 10/12/2012 10:10:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Carbon disulfide	ND	7.87		mg/Kg	1	10/15/2012 7:28:52 PM
4-Chlorotoluene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
cis-1,2-DCE	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
cis-1,3-Dichloropropene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,2-Dibromo-3-chloropropane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Dibromochloromethane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Dibromomethane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,2-Dichlorobenzene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,3-Dichlorobenzene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,4-Dichlorobenzene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Dichlorodifluoromethane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,1-Dichloroethane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,1-Dichloroethene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,2-Dichloropropane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,3-Dichloropropane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
2,2-Dichloropropane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,1-Dichloropropene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Hexachlorobutadiene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Isopropylbenzene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
4-Isopropyltoluene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Methylene chloride	ND	2.36		mg/Kg	1	10/15/2012 7:28:52 PM
n-Butylbenzene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
2-Hexanone	ND	7.87		mg/Kg	1	10/15/2012 7:28:52 PM
n-Propylbenzene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
sec-Butylbenzene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Styrene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
4-Methyl-2-pentanone	ND	7.87		mg/Kg	1	10/15/2012 7:28:52 PM
tert-Butylbenzene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,1,1,2-Tetrachloroethane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,1,2,2-Tetrachloroethane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Tetrachloroethene (PCE)	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
trans-1,2-DCE	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
trans-1,3-Dichloropropene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,2,3-Trichlorobenzene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,2,4-Trichlorobenzene	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,1,1-Trichloroethane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,1,2-Trichloroethane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Trichloroethene (TCE)	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Trichlorofluoromethane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
1,2,3-Trichloropropane	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Vinyl chloride	ND	0.787		mg/Kg	1	10/15/2012 7:28:52 PM
Surr: 1,2-Dichloroethane-d4	92.2	70-130		%REC	1	10/15/2012 7:28:52 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-013 **Matrix:** SOIL

Client Sample ID: SWMU 1-28 (1.5-2') DUP
Collection Date: 10/12/2012 10:10:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	99.8	70-130		%REC	1	10/15/2012 7:28:52 PM
Surr: Dibromofluoromethane	106	70-130		%REC	1	10/15/2012 7:28:52 PM
Surr: Toluene-d8	96.5	70-130		%REC	1	10/15/2012 7:28:52 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/21/2012 8:58:09 PM
Surr: BFB	93.8	70-130		%REC	1	10/21/2012 8:58:09 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-014 **Matrix:** SOIL

Client Sample ID: SWMU 1-30 (0-0.5')
Collection Date: 10/12/2012 11:40:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	17	10		mg/Kg	1	10/17/2012 11:47:30 AM
Motor Oil Range Organics (MRO)	79	51		mg/Kg	1	10/17/2012 11:47:30 AM
Surr: DNOP	90.9	77.6-140		%REC	1	10/17/2012 11:47:30 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.13	0.033		mg/kg	1	10/23/2012 5:07:58 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 11:16:17 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 11:16:17 PM
Barium	580	2.0		mg/Kg	20	11/2/2012 8:51:14 AM
Beryllium	0.69	0.30		mg/Kg	2	10/25/2012 11:16:17 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 11:16:17 PM
Chromium	13	0.60		mg/Kg	2	10/25/2012 11:16:17 PM
Cobalt	4.0	0.60		mg/Kg	2	10/25/2012 11:16:17 PM
Iron	14000	500		mg/Kg	500	11/2/2012 8:53:39 AM
Lead	3.7	0.50		mg/Kg	2	10/25/2012 11:16:17 PM
Manganese	550	2.0		mg/Kg	20	11/2/2012 8:51:14 AM
Nickel	7.3	1.0		mg/Kg	2	10/25/2012 11:16:17 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 11:16:17 PM
Silver	ND	0.50		mg/Kg	2	10/25/2012 11:16:17 PM
Vanadium	21	5.0		mg/Kg	2	10/25/2012 11:16:17 PM
Zinc	26	5.0		mg/Kg	2	10/25/2012 11:16:17 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Acenaphthylene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Aniline	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Anthracene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Azobenzene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Benzoic acid	ND	1.0		mg/Kg	1	10/21/2012 2:56:55 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/21/2012 2:56:55 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-014 **Matrix:** SOIL

Client Sample ID: SWMU 1-30 (0-0.5')
Collection Date: 10/12/2012 11:40:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Carbazole	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 2:56:55 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/21/2012 2:56:55 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/21/2012 2:56:55 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Chrysene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/21/2012 2:56:55 PM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/21/2012 2:56:55 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Dibenzofuran	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/21/2012 2:56:55 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/21/2012 2:56:55 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/21/2012 2:56:55 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 2:56:55 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/21/2012 2:56:55 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 2:56:55 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 2:56:55 PM
Fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Fluorene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Hexachloroethane	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Isophorone	ND	1.0		mg/Kg	1	10/21/2012 2:56:55 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
2-Methylphenol	ND	1.0		mg/Kg	1	10/21/2012 2:56:55 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Naphthalene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
3-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/21/2012 2:56:55 PM
Nitrobenzene	ND	1.0		mg/Kg	1	10/21/2012 2:56:55 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-014 **Matrix:** SOIL

Client Sample ID: SWMU 1-30 (0-0.5')
Collection Date: 10/12/2012 11:40:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Nitrophenol	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/21/2012 2:56:55 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/21/2012 2:56:55 PM
Phenanthrene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Phenol	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Pyrene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Pyridine	ND	1.0		mg/Kg	1	10/21/2012 2:56:55 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 2:56:55 PM
Surr: 2,4,6-Tribromophenol	56.8	21.3-145		%REC	1	10/21/2012 2:56:55 PM
Surr: 2-Fluorobiphenyl	56.8	20-131		%REC	1	10/21/2012 2:56:55 PM
Surr: 2-Fluorophenol	51.4	11.9-130		%REC	1	10/21/2012 2:56:55 PM
Surr: 4-Terphenyl-d14	60.0	25.1-149		%REC	1	10/21/2012 2:56:55 PM
Surr: Nitrobenzene-d5	63.8	25.6-137		%REC	1	10/21/2012 2:56:55 PM
Surr: Phenol-d5	57.3	20.3-132		%REC	1	10/21/2012 2:56:55 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00240	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Toluene	0.00603	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Ethylbenzene	0.00644	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Xylenes, Total	0.0493	0.00202		mg/Kg	1	10/15/2012 7:59:34 PM
Methyl tert-butyl ether (MTBE)	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,2,4-Trimethylbenzene	0.00268	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,3,5-Trimethylbenzene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,2-Dichloroethane (EDC)	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,2-Dibromoethane (EDB)	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Naphthalene	ND	0.00202		mg/Kg	1	10/15/2012 7:59:34 PM
1-Methylnaphthalene	ND	0.00404		mg/Kg	1	10/15/2012 7:59:34 PM
2-Methylnaphthalene	ND	0.00404		mg/Kg	1	10/15/2012 7:59:34 PM
Acetone	0.692	0.0101	E	mg/Kg	1	10/15/2012 7:59:34 PM
Bromobenzene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Bromodichloromethane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Bromoform	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Bromomethane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
2-Butanone	0.0213	0.0101		mg/Kg	1	10/15/2012 7:59:34 PM
Carbon tetrachloride	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Chlorobenzene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Chloroethane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Chloroform	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Chloromethane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
2-Chlorotoluene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-014 **Matrix:** SOIL

Client Sample ID: SWMU 1-30 (0-0.5')
Collection Date: 10/12/2012 11:40:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Carbon disulfide	ND	0.0101		mg/Kg	1	10/15/2012 7:59:34 PM
4-Chlorotoluene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
cis-1,2-DCE	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
cis-1,3-Dichloropropene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,2-Dibromo-3-chloropropane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Dibromochloromethane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Dibromomethane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,2-Dichlorobenzene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,3-Dichlorobenzene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,4-Dichlorobenzene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Dichlorodifluoromethane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,1-Dichloroethane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,1-Dichloroethene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,2-Dichloropropane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,3-Dichloropropane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
2,2-Dichloropropane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,1-Dichloropropene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Hexachlorobutadiene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Isopropylbenzene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
4-Isopropyltoluene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Methylene chloride	ND	0.00303		mg/Kg	1	10/15/2012 7:59:34 PM
n-Butylbenzene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
2-Hexanone	ND	0.0101		mg/Kg	1	10/15/2012 7:59:34 PM
n-Propylbenzene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
sec-Butylbenzene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Styrene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
4-Methyl-2-pentanone	ND	0.0101		mg/Kg	1	10/15/2012 7:59:34 PM
tert-Butylbenzene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,1,1,2-Tetrachloroethane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,1,2,2-Tetrachloroethane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Tetrachloroethene (PCE)	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
trans-1,2-DCE	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
trans-1,3-Dichloropropene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,2,3-Trichlorobenzene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,2,4-Trichlorobenzene	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,1,1-Trichloroethane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,1,2-Trichloroethane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Trichloroethene (TCE)	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Trichlorofluoromethane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
1,2,3-Trichloropropane	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Vinyl chloride	ND	0.00101		mg/Kg	1	10/15/2012 7:59:34 PM
Surr: 1,2-Dichloroethane-d4	95.9	70-130		%REC	1	10/15/2012 7:59:34 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-30 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/12/2012 11:40:00 AM
Lab ID: 1210692-014 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	111	70-130		%REC	1	10/15/2012 7:59:34 PM
Surr: Dibromofluoromethane	103	70-130		%REC	1	10/15/2012 7:59:34 PM
Surr: Toluene-d8	91.1	70-130		%REC	1	10/15/2012 7:59:34 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/21/2012 11:19:31 PM
Surr: BFB	97.4	70-130		%REC	1	10/21/2012 11:19:31 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-30 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/12/2012 12:00:00 PM
Lab ID: 1210692-015 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	23	9.9		mg/Kg	1	10/17/2012 11:03:58 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/17/2012 11:03:58 AM
Surr: DNOP	94.2	77.6-140		%REC	1	10/17/2012 11:03:58 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.14	0.033		mg/kg	1	10/23/2012 5:09:46 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 11:32:24 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 11:32:24 PM
Barium	610	2.0		mg/Kg	20	11/2/2012 8:58:09 AM
Beryllium	0.67	0.30		mg/Kg	2	10/25/2012 11:32:24 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 11:32:24 PM
Chromium	12	0.60		mg/Kg	2	10/25/2012 11:32:24 PM
Cobalt	3.8	0.60		mg/Kg	2	10/25/2012 11:32:24 PM
Iron	14000	500		mg/Kg	500	11/2/2012 9:00:35 AM
Lead	3.1	0.50		mg/Kg	2	10/25/2012 11:32:24 PM
Manganese	530	2.0		mg/Kg	20	11/2/2012 8:58:09 AM
Nickel	6.9	1.0		mg/Kg	2	10/25/2012 11:32:24 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 11:32:24 PM
Silver	ND	0.50		mg/Kg	2	10/25/2012 11:32:24 PM
Vanadium	17	5.0		mg/Kg	2	10/25/2012 11:32:24 PM
Zinc	19	5.0		mg/Kg	2	10/25/2012 11:32:24 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Acenaphthylene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Aniline	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Anthracene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Azobenzene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Benz(a)anthracene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Benzo(a)pyrene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Benzo(b)fluoranthene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Benzo(g,h,i)perylene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Benzo(k)fluoranthene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/21/2012 3:26:18 PM
Benzyl alcohol	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Bis(2-chloroethoxy)methane	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Bis(2-chloroethyl)ether	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Bis(2-chloroisopropyl)ether	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/21/2012 3:26:18 PM
4-Bromophenyl phenyl ether	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Butyl benzyl phthalate	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-30 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/12/2012 12:00:00 PM
Lab ID: 1210692-015 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Carbazole	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/21/2012 3:26:18 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/21/2012 3:26:18 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	10/21/2012 3:26:18 PM
2-Chlorophenol	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
4-Chlorophenyl phenyl ether	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Chrysene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/21/2012 3:26:18 PM
Di-n-octyl phthalate	ND	2.0		mg/Kg	1	10/21/2012 3:26:18 PM
Dibenz(a,h)anthracene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Dibenzofuran	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
1,2-Dichlorobenzene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
1,3-Dichlorobenzene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
1,4-Dichlorobenzene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	10/21/2012 3:26:18 PM
Diethyl phthalate	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Dimethyl phthalate	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/21/2012 3:26:18 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/21/2012 3:26:18 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/21/2012 3:26:18 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/21/2012 3:26:18 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/21/2012 3:26:18 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/21/2012 3:26:18 PM
Fluoranthene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Fluorene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Hexachlorobenzene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Hexachlorobutadiene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Hexachlorocyclopentadiene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Hexachloroethane	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Indeno(1,2,3-cd)pyrene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Isophorone	ND	2.5		mg/Kg	1	10/21/2012 3:26:18 PM
1-Methylnaphthalene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
2-Methylnaphthalene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/21/2012 3:26:18 PM
3+4-Methylphenol	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
N-Nitrosodi-n-propylamine	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
N-Nitrosodiphenylamine	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Naphthalene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
2-Nitroaniline	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
3-Nitroaniline	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	10/21/2012 3:26:18 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/21/2012 3:26:18 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-015 **Matrix:** SOIL

Client Sample ID: SWMU 1-30 (1.5-2')
Collection Date: 10/12/2012 12:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Nitrophenol	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	10/21/2012 3:26:18 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/21/2012 3:26:18 PM
Phenanthrene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Phenol	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Pyrene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Pyridine	ND	2.5		mg/Kg	1	10/21/2012 3:26:18 PM
1,2,4-Trichlorobenzene	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
2,4,5-Trichlorophenol	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
2,4,6-Trichlorophenol	ND	0.99		mg/Kg	1	10/21/2012 3:26:18 PM
Surr: 2,4,6-Tribromophenol	94.8	21.3-145		%REC	1	10/21/2012 3:26:18 PM
Surr: 2-Fluorobiphenyl	96.7	20-131		%REC	1	10/21/2012 3:26:18 PM
Surr: 2-Fluorophenol	82.5	11.9-130		%REC	1	10/21/2012 3:26:18 PM
Surr: 4-Terphenyl-d14	102	25.1-149		%REC	1	10/21/2012 3:26:18 PM
Surr: Nitrobenzene-d5	92.1	25.6-137		%REC	1	10/21/2012 3:26:18 PM
Surr: Phenol-d5	92.2	20.3-132		%REC	1	10/21/2012 3:26:18 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00140	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Toluene	0.00263	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Ethylbenzene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Xylenes, Total	0.00149	0.00140		mg/Kg	1	10/15/2012 8:30:17 PM
Methyl tert-butyl ether (MTBE)	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,2,4-Trimethylbenzene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,3,5-Trimethylbenzene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,2-Dichloroethane (EDC)	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,2-Dibromoethane (EDB)	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Naphthalene	ND	0.00140		mg/Kg	1	10/15/2012 8:30:17 PM
1-Methylnaphthalene	ND	0.00279		mg/Kg	1	10/15/2012 8:30:17 PM
2-Methylnaphthalene	ND	0.00279		mg/Kg	1	10/15/2012 8:30:17 PM
Acetone	0.0541	0.00698		mg/Kg	1	10/15/2012 8:30:17 PM
Bromobenzene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Bromodichloromethane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Bromoform	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Bromomethane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
2-Butanone	ND	0.00698		mg/Kg	1	10/15/2012 8:30:17 PM
Carbon tetrachloride	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Chlorobenzene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Chloroethane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Chloroform	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Chloromethane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
2-Chlorotoluene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-015 **Matrix:** SOIL

Client Sample ID: SWMU 1-30 (1.5-2')
Collection Date: 10/12/2012 12:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Carbon disulfide	ND	0.00698		mg/Kg	1	10/15/2012 8:30:17 PM
4-Chlorotoluene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
cis-1,2-DCE	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
cis-1,3-Dichloropropene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,2-Dibromo-3-chloropropane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Dibromochloromethane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Dibromomethane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,2-Dichlorobenzene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,3-Dichlorobenzene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,4-Dichlorobenzene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Dichlorodifluoromethane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,1-Dichloroethane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,1-Dichloroethene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,2-Dichloropropane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,3-Dichloropropane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
2,2-Dichloropropane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,1-Dichloropropene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Hexachlorobutadiene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Isopropylbenzene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
4-Isopropyltoluene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Methylene chloride	ND	0.00209		mg/Kg	1	10/15/2012 8:30:17 PM
n-Butylbenzene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
2-Hexanone	ND	0.00698		mg/Kg	1	10/15/2012 8:30:17 PM
n-Propylbenzene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
sec-Butylbenzene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Styrene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
4-Methyl-2-pentanone	ND	0.00698		mg/Kg	1	10/15/2012 8:30:17 PM
tert-Butylbenzene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,1,1,2-Tetrachloroethane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,1,2,2-Tetrachloroethane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Tetrachloroethene (PCE)	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
trans-1,2-DCE	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
trans-1,3-Dichloropropene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,2,3-Trichlorobenzene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,2,4-Trichlorobenzene	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,1,1-Trichloroethane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,1,2-Trichloroethane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Trichloroethene (TCE)	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Trichlorofluoromethane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
1,2,3-Trichloropropane	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Vinyl chloride	ND	0.000698		mg/Kg	1	10/15/2012 8:30:17 PM
Surr: 1,2-Dichloroethane-d4	92.3	70-130		%REC	1	10/15/2012 8:30:17 PM

Qualifiers:

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

Analytical Report
Lab Order **1210692**
Date Reported: **11/19/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-015 **Matrix:** SOIL

Client Sample ID: SWMU 1-30 (1.5-2')
Collection Date: 10/12/2012 12:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	92.6	70-130		%REC	1	10/15/2012 8:30:17 PM
Surr: Dibromofluoromethane	99.4	70-130		%REC	1	10/15/2012 8:30:17 PM
Surr: Toluene-d8	106	70-130		%REC	1	10/15/2012 8:30:17 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/21/2012 11:47:58 PM
Surr: BFB	87.9	70-130		%REC	1	10/21/2012 11:47:58 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-016 **Matrix:** SOIL

Client Sample ID: SWMU 1-30 (4-6')
Collection Date: 10/12/2012 12:10:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/16/2012 6:43:28 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/16/2012 6:43:28 PM
Surr: DNOP	102	77.6-140		%REC	1	10/16/2012 6:43:28 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 5:11:32 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 11:38:10 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 11:38:10 PM
Barium	870	2.0		mg/Kg	20	11/2/2012 9:12:14 AM
Beryllium	0.47	0.30		mg/Kg	2	10/25/2012 11:38:10 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 11:38:10 PM
Chromium	7.5	0.60		mg/Kg	2	10/25/2012 11:38:10 PM
Cobalt	3.1	0.60		mg/Kg	2	10/25/2012 11:38:10 PM
Iron	12000	500		mg/Kg	500	11/2/2012 9:14:39 AM
Lead	3.3	0.50		mg/Kg	2	10/25/2012 11:38:10 PM
Manganese	840	2.0		mg/Kg	20	11/2/2012 9:12:14 AM
Nickel	4.7	1.0		mg/Kg	2	10/25/2012 11:38:10 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 11:38:10 PM
Silver	ND	0.50		mg/Kg	2	10/25/2012 11:38:10 PM
Vanadium	16	5.0		mg/Kg	2	10/25/2012 11:38:10 PM
Zinc	10	5.0		mg/Kg	2	10/25/2012 11:38:10 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Aniline	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Anthracene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Azobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Benzoic acid	ND	0.51		mg/Kg	1	10/21/2012 3:55:40 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Bis(2-ethylhexyl)phthalate	ND	0.51		mg/Kg	1	10/21/2012 3:55:40 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-016 **Matrix:** SOIL

Client Sample ID: SWMU 1-30 (4-6')
Collection Date: 10/12/2012 12:10:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Carbazole	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
4-Chloro-3-methylphenol	ND	0.51		mg/Kg	1	10/21/2012 3:55:40 PM
4-Chloroaniline	ND	0.51		mg/Kg	1	10/21/2012 3:55:40 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/21/2012 3:55:40 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Chrysene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Di-n-butyl phthalate	ND	0.51		mg/Kg	1	10/21/2012 3:55:40 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 3:55:40 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/21/2012 3:55:40 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 3:55:40 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/21/2012 3:55:40 PM
4,6-Dinitro-2-methylphenol	ND	0.51		mg/Kg	1	10/21/2012 3:55:40 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/21/2012 3:55:40 PM
2,4-Dinitrotoluene	ND	0.51		mg/Kg	1	10/21/2012 3:55:40 PM
2,6-Dinitrotoluene	ND	0.51		mg/Kg	1	10/21/2012 3:55:40 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Fluorene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Isophorone	ND	0.51		mg/Kg	1	10/21/2012 3:55:40 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
2-Methylphenol	ND	0.51		mg/Kg	1	10/21/2012 3:55:40 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Naphthalene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
3-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 3:55:40 PM
Nitrobenzene	ND	0.51		mg/Kg	1	10/21/2012 3:55:40 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-016 **Matrix:** SOIL

Client Sample ID: SWMU 1-30 (4-6')
Collection Date: 10/12/2012 12:10:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/21/2012 3:55:40 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/21/2012 3:55:40 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Phenol	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Pyrene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Pyridine	ND	0.51		mg/Kg	1	10/21/2012 3:55:40 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 3:55:40 PM
Surr: 2,4,6-Tribromophenol	92.0	21.3-145		%REC	1	10/21/2012 3:55:40 PM
Surr: 2-Fluorobiphenyl	92.8	20-131		%REC	1	10/21/2012 3:55:40 PM
Surr: 2-Fluorophenol	81.3	11.9-130		%REC	1	10/21/2012 3:55:40 PM
Surr: 4-Terphenyl-d14	85.0	25.1-149		%REC	1	10/21/2012 3:55:40 PM
Surr: Nitrobenzene-d5	106	25.6-137		%REC	1	10/21/2012 3:55:40 PM
Surr: Phenol-d5	93.5	20.3-132		%REC	1	10/21/2012 3:55:40 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00109	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Toluene	0.00187	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Ethylbenzene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Xylenes, Total	ND	0.00137		mg/Kg	1	10/15/2012 9:01:08 PM
Methyl tert-butyl ether (MTBE)	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,2,4-Trimethylbenzene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,3,5-Trimethylbenzene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,2-Dichloroethane (EDC)	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,2-Dibromoethane (EDB)	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Naphthalene	ND	0.00137		mg/Kg	1	10/15/2012 9:01:08 PM
1-Methylnaphthalene	ND	0.00274		mg/Kg	1	10/15/2012 9:01:08 PM
2-Methylnaphthalene	ND	0.00274		mg/Kg	1	10/15/2012 9:01:08 PM
Acetone	0.0215	0.00686		mg/Kg	1	10/15/2012 9:01:08 PM
Bromobenzene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Bromodichloromethane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Bromoform	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Bromomethane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
2-Butanone	ND	0.00686		mg/Kg	1	10/15/2012 9:01:08 PM
Carbon tetrachloride	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Chlorobenzene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Chloroethane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Chloroform	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Chloromethane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
2-Chlorotoluene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-016 **Matrix:** SOIL

Client Sample ID: SWMU 1-30 (4-6')
Collection Date: 10/12/2012 12:10:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Carbon disulfide	ND	0.00686		mg/Kg	1	10/15/2012 9:01:08 PM
4-Chlorotoluene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
cis-1,2-DCE	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
cis-1,3-Dichloropropene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,2-Dibromo-3-chloropropane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Dibromochloromethane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Dibromomethane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,2-Dichlorobenzene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,3-Dichlorobenzene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,4-Dichlorobenzene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Dichlorodifluoromethane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,1-Dichloroethane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,1-Dichloroethene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,2-Dichloropropane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,3-Dichloropropane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
2,2-Dichloropropane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,1-Dichloropropene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Hexachlorobutadiene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Isopropylbenzene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
4-Isopropyltoluene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Methylene chloride	ND	0.00206		mg/Kg	1	10/15/2012 9:01:08 PM
n-Butylbenzene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
2-Hexanone	ND	0.00686		mg/Kg	1	10/15/2012 9:01:08 PM
n-Propylbenzene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
sec-Butylbenzene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Styrene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
4-Methyl-2-pentanone	ND	0.00686		mg/Kg	1	10/15/2012 9:01:08 PM
tert-Butylbenzene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,1,1,2-Tetrachloroethane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,1,2,2-Tetrachloroethane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Tetrachloroethene (PCE)	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
trans-1,2-DCE	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
trans-1,3-Dichloropropene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,2,3-Trichlorobenzene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,2,4-Trichlorobenzene	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,1,1-Trichloroethane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,1,2-Trichloroethane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Trichloroethene (TCE)	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Trichlorofluoromethane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
1,2,3-Trichloropropane	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Vinyl chloride	ND	0.000686		mg/Kg	1	10/15/2012 9:01:08 PM
Surr: 1,2-Dichloroethane-d4	84.9	70-130		%REC	1	10/15/2012 9:01:08 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-016 **Matrix:** SOIL

Client Sample ID: SWMU 1-30 (4-6')
Collection Date: 10/12/2012 12:10:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	92.6	70-130		%REC	1	10/15/2012 9:01:08 PM
Surr: Dibromofluoromethane	92.2	70-130		%REC	1	10/15/2012 9:01:08 PM
Surr: Toluene-d8	86.2	70-130		%REC	1	10/15/2012 9:01:08 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/22/2012 12:16:38 AM
Surr: BFB	87.9	70-130		%REC	1	10/22/2012 12:16:38 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-017 **Matrix:** SOIL

Client Sample ID: SWMU 1-35 (0-0.5')
Collection Date: 10/12/2012 12:45:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	12	9.6		mg/Kg	1	10/17/2012 12:09:18 PM
Motor Oil Range Organics (MRO)	72	48		mg/Kg	1	10/17/2012 12:09:18 PM
Surr: DNOP	87.8	77.6-140		%REC	1	10/17/2012 12:09:18 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.083	0.033		mg/kg	1	10/23/2012 5:13:26 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 11:43:54 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 11:43:54 PM
Barium	610	2.0		mg/Kg	20	11/2/2012 9:17:31 AM
Beryllium	0.67	0.30		mg/Kg	2	10/25/2012 11:43:54 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 11:43:54 PM
Chromium	14	0.60		mg/Kg	2	10/25/2012 11:43:54 PM
Cobalt	3.9	0.60		mg/Kg	2	10/25/2012 11:43:54 PM
Iron	13000	500		mg/Kg	500	11/2/2012 9:19:57 AM
Lead	2.6	0.50		mg/Kg	2	10/25/2012 11:43:54 PM
Manganese	500	2.0		mg/Kg	20	11/2/2012 9:17:31 AM
Nickel	10	1.0		mg/Kg	2	10/25/2012 11:43:54 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 11:43:54 PM
Silver	ND	0.50		mg/Kg	2	10/25/2012 11:43:54 PM
Vanadium	26	5.0		mg/Kg	2	10/25/2012 11:43:54 PM
Zinc	23	5.0		mg/Kg	2	10/25/2012 11:43:54 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Acenaphthylene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Aniline	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Anthracene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Azobenzene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Benz(a)anthracene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Benzoic acid	ND	5.0		mg/Kg	1	10/21/2012 4:25:02 PM
Benzyl alcohol	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Bis(2-ethylhexyl)phthalate	ND	5.0		mg/Kg	1	10/21/2012 4:25:02 PM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-017 **Matrix:** SOIL

Client Sample ID: SWMU 1-35 (0-0.5')
Collection Date: 10/12/2012 12:45:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Carbazole	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
4-Chloro-3-methylphenol	ND	5.0		mg/Kg	1	10/21/2012 4:25:02 PM
4-Chloroaniline	ND	5.0		mg/Kg	1	10/21/2012 4:25:02 PM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	10/21/2012 4:25:02 PM
2-Chlorophenol	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Chrysene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Di-n-butyl phthalate	ND	5.0		mg/Kg	1	10/21/2012 4:25:02 PM
Di-n-octyl phthalate	ND	4.0		mg/Kg	1	10/21/2012 4:25:02 PM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Dibenzofuran	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
3,3'-Dichlorobenzidine	ND	2.5		mg/Kg	1	10/21/2012 4:25:02 PM
Diethyl phthalate	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Dimethyl phthalate	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	10/21/2012 4:25:02 PM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	10/21/2012 4:25:02 PM
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	1	10/21/2012 4:25:02 PM
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	10/21/2012 4:25:02 PM
2,4-Dinitrotoluene	ND	5.0		mg/Kg	1	10/21/2012 4:25:02 PM
2,6-Dinitrotoluene	ND	5.0		mg/Kg	1	10/21/2012 4:25:02 PM
Fluoranthene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Fluorene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Hexachlorobenzene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Hexachloroethane	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Isophorone	ND	5.0		mg/Kg	1	10/21/2012 4:25:02 PM
1-Methylnaphthalene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
2-Methylnaphthalene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
2-Methylphenol	ND	5.0		mg/Kg	1	10/21/2012 4:25:02 PM
3+4-Methylphenol	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Naphthalene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
2-Nitroaniline	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
3-Nitroaniline	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
4-Nitroaniline	ND	4.0		mg/Kg	1	10/21/2012 4:25:02 PM
Nitrobenzene	ND	5.0		mg/Kg	1	10/21/2012 4:25:02 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-017 **Matrix:** SOIL

Client Sample ID: SWMU 1-35 (0-0.5')
Collection Date: 10/12/2012 12:45:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
2-Nitrophenol	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
4-Nitrophenol	ND	2.5		mg/Kg	1	10/21/2012 4:25:02 PM
Pentachlorophenol	ND	4.0		mg/Kg	1	10/21/2012 4:25:02 PM
Phenanthrene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Phenol	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Pyrene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Pyridine	ND	5.0		mg/Kg	1	10/21/2012 4:25:02 PM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	10/21/2012 4:25:02 PM
Surr: 2,4,6-Tribromophenol	109	21.3-145		%REC	1	10/21/2012 4:25:02 PM
Surr: 2-Fluorobiphenyl	108	20-131		%REC	1	10/21/2012 4:25:02 PM
Surr: 2-Fluorophenol	90.7	11.9-130		%REC	1	10/21/2012 4:25:02 PM
Surr: 4-Terphenyl-d14	129	25.1-149		%REC	1	10/21/2012 4:25:02 PM
Surr: Nitrobenzene-d5	98.4	25.6-137		%REC	1	10/21/2012 4:25:02 PM
Surr: Phenol-d5	101	20.3-132		%REC	1	10/21/2012 4:25:02 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00226	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Toluene	0.00888	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Ethylbenzene	0.00199	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Xylenes, Total	0.00906	0.00179		mg/Kg	1	10/15/2012 9:31:58 PM
Methyl tert-butyl ether (MTBE)	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,2,4-Trimethylbenzene	0.00341	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,3,5-Trimethylbenzene	0.00139	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,2-Dichloroethane (EDC)	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,2-Dibromoethane (EDB)	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Naphthalene	ND	0.00179		mg/Kg	1	10/15/2012 9:31:58 PM
1-Methylnaphthalene	ND	0.00358		mg/Kg	1	10/15/2012 9:31:58 PM
2-Methylnaphthalene	ND	0.00358		mg/Kg	1	10/15/2012 9:31:58 PM
Acetone	0.0608	0.00896		mg/Kg	1	10/15/2012 9:31:58 PM
Bromobenzene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Bromodichloromethane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Bromoform	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Bromomethane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
2-Butanone	ND	0.00896		mg/Kg	1	10/15/2012 9:31:58 PM
Carbon tetrachloride	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Chlorobenzene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Chloroethane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Chloroform	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Chloromethane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
2-Chlorotoluene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-017 **Matrix:** SOIL

Client Sample ID: SWMU 1-35 (0-0.5')
Collection Date: 10/12/2012 12:45:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Carbon disulfide	ND	0.00896		mg/Kg	1	10/15/2012 9:31:58 PM
4-Chlorotoluene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
cis-1,2-DCE	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
cis-1,3-Dichloropropene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,2-Dibromo-3-chloropropane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Dibromochloromethane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Dibromomethane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,2-Dichlorobenzene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,3-Dichlorobenzene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,4-Dichlorobenzene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Dichlorodifluoromethane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,1-Dichloroethane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,1-Dichloroethene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,2-Dichloropropane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,3-Dichloropropane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
2,2-Dichloropropane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,1-Dichloropropene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Hexachlorobutadiene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Isopropylbenzene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
4-Isopropyltoluene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Methylene chloride	ND	0.00269		mg/Kg	1	10/15/2012 9:31:58 PM
n-Butylbenzene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
2-Hexanone	ND	0.00896		mg/Kg	1	10/15/2012 9:31:58 PM
n-Propylbenzene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
sec-Butylbenzene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Styrene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
4-Methyl-2-pentanone	ND	0.00896		mg/Kg	1	10/15/2012 9:31:58 PM
tert-Butylbenzene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,1,1,2-Tetrachloroethane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,1,2,2-Tetrachloroethane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Tetrachloroethene (PCE)	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
trans-1,2-DCE	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
trans-1,3-Dichloropropene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,2,3-Trichlorobenzene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,2,4-Trichlorobenzene	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,1,1-Trichloroethane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,1,2-Trichloroethane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Trichloroethene (TCE)	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Trichlorofluoromethane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
1,2,3-Trichloropropane	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Vinyl chloride	ND	0.000896		mg/Kg	1	10/15/2012 9:31:58 PM
Surr: 1,2-Dichloroethane-d4	90.7	70-130		%REC	1	10/15/2012 9:31:58 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-017 **Matrix:** SOIL

Client Sample ID: SWMU 1-35 (0-0.5')
Collection Date: 10/12/2012 12:45:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Surr: 4-Bromofluorobenzene	118	70-130		%REC	1	10/15/2012 9:31:58 PM
Surr: Dibromofluoromethane	101	70-130		%REC	1	10/15/2012 9:31:58 PM
Surr: Toluene-d8	99.8	70-130		%REC	1	10/15/2012 9:31:58 PM
EPA METHOD 8015B MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/22/2012 12:45:20 AM
Surr: BFB	92.0	70-130		%REC	1	10/22/2012 12:45:20 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-018 **Matrix:** SOIL

Client Sample ID: SWMU 1-35 (1.5-2')
Collection Date: 10/12/2012 1:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	15	10		mg/Kg	1	10/17/2012 12:30:54 PM
Motor Oil Range Organics (MRO)	130	51		mg/Kg	1	10/17/2012 12:30:54 PM
Surr: DNOP	91.2	77.6-140		%REC	1	10/17/2012 12:30:54 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	24	5.0		mg/Kg	1	10/22/2012 1:28:54 AM
Surr: BFB	108	84-116		%REC	1	10/22/2012 1:28:54 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.056	0.033		mg/kg	1	10/23/2012 5:18:43 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 11:49:40 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 11:49:40 PM
Barium	1200	5.0		mg/Kg	50	11/2/2012 10:14:10 AM
Beryllium	0.46	0.30		mg/Kg	2	10/25/2012 11:49:40 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 11:49:40 PM
Chromium	11	0.60		mg/Kg	2	10/25/2012 11:49:40 PM
Cobalt	3.4	0.60		mg/Kg	2	10/25/2012 11:49:40 PM
Iron	10000	500		mg/Kg	500	11/2/2012 9:25:14 AM
Lead	2.3	0.50		mg/Kg	2	10/25/2012 11:49:40 PM
Manganese	820	2.0		mg/Kg	20	11/2/2012 9:22:48 AM
Nickel	9.0	1.0		mg/Kg	2	10/25/2012 11:49:40 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 11:49:40 PM
Silver	ND	0.50		mg/Kg	2	10/25/2012 11:49:40 PM
Vanadium	19	5.0		mg/Kg	2	10/25/2012 11:49:40 PM
Zinc	22	5.0		mg/Kg	2	10/25/2012 11:49:40 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Acenaphthylene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Aniline	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Anthracene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Azobenzene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/21/2012 4:54:19 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-018 **Matrix:** SOIL

Client Sample ID: SWMU 1-35 (1.5-2')
Collection Date: 10/12/2012 1:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/21/2012 4:54:19 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Carbazole	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/21/2012 4:54:19 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/21/2012 4:54:19 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	10/21/2012 4:54:19 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Chrysene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/21/2012 4:54:19 PM
Di-n-octyl phthalate	ND	2.0		mg/Kg	1	10/21/2012 4:54:19 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Dibenzofuran	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	10/21/2012 4:54:19 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/21/2012 4:54:19 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/21/2012 4:54:19 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/21/2012 4:54:19 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/21/2012 4:54:19 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/21/2012 4:54:19 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/21/2012 4:54:19 PM
Fluoranthene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Fluorene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Hexachloroethane	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Isophorone	ND	2.5		mg/Kg	1	10/21/2012 4:54:19 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/21/2012 4:54:19 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Naphthalene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-018 **Matrix:** SOIL

Client Sample ID: SWMU 1-35 (1.5-2')
Collection Date: 10/12/2012 1:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	10/21/2012 4:54:19 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/21/2012 4:54:19 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	10/21/2012 4:54:19 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/21/2012 4:54:19 PM
Phenanthrene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Phenol	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Pyrene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Pyridine	ND	2.5		mg/Kg	1	10/21/2012 4:54:19 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/21/2012 4:54:19 PM
Surr: 2,4,6-Tribromophenol	84.3	21.3-145		%REC	1	10/21/2012 4:54:19 PM
Surr: 2-Fluorobiphenyl	82.3	20-131		%REC	1	10/21/2012 4:54:19 PM
Surr: 2-Fluorophenol	76.3	11.9-130		%REC	1	10/21/2012 4:54:19 PM
Surr: 4-Terphenyl-d14	94.7	25.1-149		%REC	1	10/21/2012 4:54:19 PM
Surr: Nitrobenzene-d5	84.6	25.6-137		%REC	1	10/21/2012 4:54:19 PM
Surr: Phenol-d5	81.4	20.3-132		%REC	1	10/21/2012 4:54:19 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00134	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Toluene	0.00572	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Ethylbenzene	0.00141	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Xylenes, Total	0.00512	0.00136		mg/Kg	1	10/16/2012 1:59:01 PM
Methyl tert-butyl ether (MTBE)	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,2,4-Trimethylbenzene	0.00197	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,3,5-Trimethylbenzene	0.000762	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,2-Dichloroethane (EDC)	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,2-Dibromoethane (EDB)	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Naphthalene	ND	0.00136		mg/Kg	1	10/16/2012 1:59:01 PM
1-Methylnaphthalene	ND	0.00272		mg/Kg	1	10/16/2012 1:59:01 PM
2-Methylnaphthalene	ND	0.00272		mg/Kg	1	10/16/2012 1:59:01 PM
Acetone	0.0525	0.00680		mg/Kg	1	10/16/2012 1:59:01 PM
Bromobenzene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Bromodichloromethane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Bromoform	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Bromomethane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
2-Butanone	ND	0.00680		mg/Kg	1	10/16/2012 1:59:01 PM
Carbon tetrachloride	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Chlorobenzene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Chloroethane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-018 **Matrix:** SOIL

Client Sample ID: SWMU 1-35 (1.5-2')
Collection Date: 10/12/2012 1:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Chloromethane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
2-Chlorotoluene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Carbon disulfide	ND	0.00680		mg/Kg	1	10/16/2012 1:59:01 PM
4-Chlorotoluene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
cis-1,2-DCE	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
cis-1,3-Dichloropropene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,2-Dibromo-3-chloropropane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Dibromochloromethane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Dibromomethane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,2-Dichlorobenzene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,3-Dichlorobenzene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,4-Dichlorobenzene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Dichlorodifluoromethane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,1-Dichloroethane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,1-Dichloroethene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,2-Dichloropropane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,3-Dichloropropane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
2,2-Dichloropropane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,1-Dichloropropene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Hexachlorobutadiene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Isopropylbenzene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
4-Isopropyltoluene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Methylene chloride	ND	0.00204		mg/Kg	1	10/16/2012 1:59:01 PM
n-Butylbenzene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
2-Hexanone	ND	0.00680		mg/Kg	1	10/16/2012 1:59:01 PM
n-Propylbenzene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
sec-Butylbenzene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Styrene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
4-Methyl-2-pentanone	ND	0.00680		mg/Kg	1	10/16/2012 1:59:01 PM
tert-Butylbenzene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,1,1,2-Tetrachloroethane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,1,2,2-Tetrachloroethane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Tetrachloroethene (PCE)	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
trans-1,2-DCE	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
trans-1,3-Dichloropropene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,2,3-Trichlorobenzene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,2,4-Trichlorobenzene	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,1,1-Trichloroethane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
1,1,2-Trichloroethane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Trichloroethene (TCE)	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Trichlorofluoromethane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-35 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/12/2012 1:00:00 PM
Lab ID: 1210692-018 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Vinyl chloride	ND	0.000680		mg/Kg	1	10/16/2012 1:59:01 PM
Surr: 1,2-Dichloroethane-d4	94.1	70-130		%REC	1	10/16/2012 1:59:01 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	10/16/2012 1:59:01 PM
Surr: Dibromofluoromethane	103	70-130		%REC	1	10/16/2012 1:59:01 PM
Surr: Toluene-d8	108	70-130		%REC	1	10/16/2012 1:59:01 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-019 **Matrix:** SOIL

Client Sample ID: SWMU 1-35 (4-6')
Collection Date: 10/12/2012 1:10:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/16/2012 5:53:12 PM
Motor Oil Range Organics (MRO)	ND	52		mg/Kg	1	10/16/2012 5:53:12 PM
Surr: DNOP	95.2	77.6-140		%REC	1	10/16/2012 5:53:12 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/22/2012 1:57:42 AM
Surr: BFB	94.8	84-116		%REC	1	10/22/2012 1:57:42 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 5:20:30 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 11:57:27 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 11:57:27 PM
Barium	440	2.0		mg/Kg	20	11/2/2012 9:28:08 AM
Beryllium	0.67	0.30		mg/Kg	2	10/25/2012 11:57:27 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 11:57:27 PM
Chromium	9.8	0.60		mg/Kg	2	10/25/2012 11:57:27 PM
Cobalt	3.6	0.60		mg/Kg	2	10/25/2012 11:57:27 PM
Iron	16000	500		mg/Kg	500	11/2/2012 9:32:13 AM
Lead	3.3	0.50		mg/Kg	2	10/25/2012 11:57:27 PM
Manganese	770	2.0		mg/Kg	20	11/2/2012 9:28:08 AM
Nickel	6.2	1.0		mg/Kg	2	10/25/2012 11:57:27 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 11:57:27 PM
Silver	ND	0.50		mg/Kg	2	10/25/2012 11:57:27 PM
Vanadium	25	5.0		mg/Kg	2	10/25/2012 11:57:27 PM
Zinc	12	5.0		mg/Kg	2	10/25/2012 11:57:27 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Acenaphthylene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Aniline	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Anthracene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Azobenzene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Benzoic acid	ND	1.0		mg/Kg	1	10/21/2012 5:23:35 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-019 **Matrix:** SOIL

Client Sample ID: SWMU 1-35 (4-6')
Collection Date: 10/12/2012 1:10:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/21/2012 5:23:35 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Carbazole	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 5:23:35 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/21/2012 5:23:35 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/21/2012 5:23:35 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Chrysene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/21/2012 5:23:35 PM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/21/2012 5:23:35 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Dibenzofuran	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/21/2012 5:23:35 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/21/2012 5:23:35 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/21/2012 5:23:35 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 5:23:35 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/21/2012 5:23:35 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 5:23:35 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 5:23:35 PM
Fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Fluorene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Hexachloroethane	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Isophorone	ND	1.0		mg/Kg	1	10/21/2012 5:23:35 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
2-Methylphenol	ND	1.0		mg/Kg	1	10/21/2012 5:23:35 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Naphthalene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-019 **Matrix:** SOIL

Client Sample ID: SWMU 1-35 (4-6')
Collection Date: 10/12/2012 1:10:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/21/2012 5:23:35 PM
Nitrobenzene	ND	1.0		mg/Kg	1	10/21/2012 5:23:35 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/21/2012 5:23:35 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/21/2012 5:23:35 PM
Phenanthrene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Phenol	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Pyrene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Pyridine	ND	1.0		mg/Kg	1	10/21/2012 5:23:35 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 5:23:35 PM
Surr: 2,4,6-Tribromophenol	89.2	21.3-145		%REC	1	10/21/2012 5:23:35 PM
Surr: 2-Fluorobiphenyl	87.2	20-131		%REC	1	10/21/2012 5:23:35 PM
Surr: 2-Fluorophenol	84.6	11.9-130		%REC	1	10/21/2012 5:23:35 PM
Surr: 4-Terphenyl-d14	84.6	25.1-149		%REC	1	10/21/2012 5:23:35 PM
Surr: Nitrobenzene-d5	94.5	25.6-137		%REC	1	10/21/2012 5:23:35 PM
Surr: Phenol-d5	88.8	20.3-132		%REC	1	10/21/2012 5:23:35 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00202	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Toluene	0.00423	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Ethylbenzene	0.00107	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Xylenes, Total	0.00434	0.00140		mg/Kg	1	10/15/2012 10:33:34 PM
Methyl tert-butyl ether (MTBE)	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,2,4-Trimethylbenzene	0.00177	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,3,5-Trimethylbenzene	0.000722	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,2-Dichloroethane (EDC)	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,2-Dibromoethane (EDB)	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Naphthalene	ND	0.00140		mg/Kg	1	10/15/2012 10:33:34 PM
1-Methylnaphthalene	ND	0.00280		mg/Kg	1	10/15/2012 10:33:34 PM
2-Methylnaphthalene	ND	0.00280		mg/Kg	1	10/15/2012 10:33:34 PM
Acetone	0.0381	0.00701		mg/Kg	1	10/15/2012 10:33:34 PM
Bromobenzene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Bromodichloromethane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Bromoform	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Bromomethane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
2-Butanone	ND	0.00701		mg/Kg	1	10/15/2012 10:33:34 PM
Carbon tetrachloride	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Chlorobenzene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Chloroethane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-019 **Matrix:** SOIL

Client Sample ID: SWMU 1-35 (4-6')
Collection Date: 10/12/2012 1:10:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Chloromethane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
2-Chlorotoluene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Carbon disulfide	ND	0.00701		mg/Kg	1	10/15/2012 10:33:34 PM
4-Chlorotoluene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
cis-1,2-DCE	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
cis-1,3-Dichloropropene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,2-Dibromo-3-chloropropane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Dibromochloromethane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Dibromomethane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,2-Dichlorobenzene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,3-Dichlorobenzene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,4-Dichlorobenzene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Dichlorodifluoromethane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,1-Dichloroethane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,1-Dichloroethene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,2-Dichloropropane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,3-Dichloropropane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
2,2-Dichloropropane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,1-Dichloropropene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Hexachlorobutadiene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Isopropylbenzene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
4-Isopropyltoluene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Methylene chloride	ND	0.00210		mg/Kg	1	10/15/2012 10:33:34 PM
n-Butylbenzene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
2-Hexanone	ND	0.00701		mg/Kg	1	10/15/2012 10:33:34 PM
n-Propylbenzene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
sec-Butylbenzene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Styrene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
4-Methyl-2-pentanone	ND	0.00701		mg/Kg	1	10/15/2012 10:33:34 PM
tert-Butylbenzene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,1,1,2-Tetrachloroethane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,1,2,2-Tetrachloroethane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Tetrachloroethene (PCE)	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
trans-1,2-DCE	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
trans-1,3-Dichloropropene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,2,3-Trichlorobenzene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,2,4-Trichlorobenzene	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,1,1-Trichloroethane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
1,1,2-Trichloroethane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Trichloroethene (TCE)	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Trichlorofluoromethane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-019 **Matrix:** SOIL

Client Sample ID: SWMU 1-35 (4-6')
Collection Date: 10/12/2012 1:10:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Vinyl chloride	ND	0.000701		mg/Kg	1	10/15/2012 10:33:34 PM
Surr: 1,2-Dichloroethane-d4	97.1	70-130		%REC	1	10/15/2012 10:33:34 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	10/15/2012 10:33:34 PM
Surr: Dibromofluoromethane	110	70-130		%REC	1	10/15/2012 10:33:34 PM
Surr: Toluene-d8	95.2	70-130		%REC	1	10/15/2012 10:33:34 PM

Qualifiers:

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

Analytical Report
Lab Order **1210692**
Date Reported: **11/19/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MeOH Blank
Project: SWMU NO.1
Collection Date:
Lab ID: 1210692-020
Matrix: MEOH (SOIL)
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/22/2012 2:26:31 AM
Surr: BFB	96.1	84-116		%REC	1	10/22/2012 2:26:31 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
Toluene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
Ethylbenzene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
Naphthalene	ND	0.10		mg/Kg	1	10/16/2012 4:17:22 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/16/2012 4:17:22 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/16/2012 4:17:22 AM
Acetone	ND	0.75		mg/Kg	1	10/16/2012 4:17:22 AM
Bromobenzene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
Bromodichloromethane	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
Bromoform	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
Bromomethane	ND	0.15		mg/Kg	1	10/16/2012 4:17:22 AM
2-Butanone	ND	0.50		mg/Kg	1	10/16/2012 4:17:22 AM
Carbon disulfide	ND	0.50		mg/Kg	1	10/16/2012 4:17:22 AM
Carbon tetrachloride	ND	0.10		mg/Kg	1	10/16/2012 4:17:22 AM
Chlorobenzene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
Chloroethane	ND	0.10		mg/Kg	1	10/16/2012 4:17:22 AM
Chloroform	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
Chloromethane	ND	0.15		mg/Kg	1	10/16/2012 4:17:22 AM
2-Chlorotoluene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
4-Chlorotoluene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
cis-1,2-DCE	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	10/16/2012 4:17:22 AM
Dibromochloromethane	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
Dibromomethane	ND	0.10		mg/Kg	1	10/16/2012 4:17:22 AM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	10/16/2012 4:17:22 AM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MeOH Blank
Project: SWMU NO.1
Collection Date:
Lab ID: 1210692-020
Matrix: MEOH (SOIL)
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
2,2-Dichloropropane	ND	0.10		mg/Kg	1	10/16/2012 4:17:22 AM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	10/16/2012 4:17:22 AM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	10/16/2012 4:17:22 AM
2-Hexanone	ND	0.50		mg/Kg	1	10/16/2012 4:17:22 AM
Isopropylbenzene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	10/16/2012 4:17:22 AM
Methylene chloride	ND	0.15		mg/Kg	1	10/16/2012 4:17:22 AM
n-Butylbenzene	ND	0.15		mg/Kg	1	10/16/2012 4:17:22 AM
n-Propylbenzene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
sec-Butylbenzene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
Styrene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
tert-Butylbenzene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
trans-1,2-DCE	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	10/16/2012 4:17:22 AM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	10/16/2012 4:17:22 AM
Vinyl chloride	ND	0.050		mg/Kg	1	10/16/2012 4:17:22 AM
Xylenes, Total	ND	0.10		mg/Kg	1	10/16/2012 4:17:22 AM
Surr: 1,2-Dichloroethane-d4	92.0	70-130		%REC	1	10/16/2012 4:17:22 AM
Surr: 4-Bromofluorobenzene	91.0	70-130		%REC	1	10/16/2012 4:17:22 AM
Surr: Dibromofluoromethane	89.3	70-130		%REC	1	10/16/2012 4:17:22 AM
Surr: Toluene-d8	97.8	70-130		%REC	1	10/16/2012 4:17:22 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-021 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (0-0.5')
Collection Date: 10/12/2012 2:05:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	77	10		mg/Kg	1	10/16/2012 6:18:20 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/16/2012 6:18:20 PM
Surr: DNOP	105	77.6-140		%REC	1	10/16/2012 6:18:20 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/22/2012 2:55:20 AM
Surr: BFB	94.8	84-116		%REC	1	10/22/2012 2:55:20 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.12	0.033		mg/kg	1	10/23/2012 5:29:24 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/26/2012 12:11:53 AM
Arsenic	ND	5.0		mg/Kg	2	10/26/2012 12:11:53 AM
Barium	600	2.0		mg/Kg	20	11/2/2012 9:35:04 AM
Beryllium	0.56	0.30		mg/Kg	2	10/26/2012 12:11:53 AM
Cadmium	ND	0.20		mg/Kg	2	10/26/2012 12:11:53 AM
Chromium	11	0.60		mg/Kg	2	10/26/2012 12:11:53 AM
Cobalt	3.6	0.60		mg/Kg	2	10/26/2012 12:11:53 AM
Iron	13000	500		mg/Kg	500	11/2/2012 9:37:29 AM
Lead	3.5	0.50		mg/Kg	2	10/26/2012 12:11:53 AM
Manganese	590	2.0		mg/Kg	20	11/2/2012 9:35:04 AM
Nickel	6.3	1.0		mg/Kg	2	10/26/2012 12:11:53 AM
Selenium	ND	5.0		mg/Kg	2	10/26/2012 12:11:53 AM
Silver	ND	0.50		mg/Kg	2	10/26/2012 12:11:53 AM
Vanadium	18	5.0		mg/Kg	2	10/26/2012 12:11:53 AM
Zinc	30	5.0		mg/Kg	2	10/26/2012 12:11:53 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Acenaphthylene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Aniline	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Anthracene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Azobenzene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Benzoic acid	ND	1.0		mg/Kg	1	10/21/2012 10:37:40 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-021 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (0-0.5')
Collection Date: 10/12/2012 2:05:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/21/2012 10:37:40 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Carbazole	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 10:37:40 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/21/2012 10:37:40 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/21/2012 10:37:40 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Chrysene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/21/2012 10:37:40 PM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/21/2012 10:37:40 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Dibenzofuran	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/21/2012 10:37:40 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/21/2012 10:37:40 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/21/2012 10:37:40 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 10:37:40 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/21/2012 10:37:40 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 10:37:40 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 10:37:40 PM
Fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Fluorene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Hexachloroethane	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Isophorone	ND	1.0		mg/Kg	1	10/21/2012 10:37:40 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
2-Methylphenol	ND	1.0		mg/Kg	1	10/21/2012 10:37:40 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Naphthalene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-021 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (0-0.5')
Collection Date: 10/12/2012 2:05:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/21/2012 10:37:40 PM
Nitrobenzene	ND	1.0		mg/Kg	1	10/21/2012 10:37:40 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/21/2012 10:37:40 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/21/2012 10:37:40 PM
Phenanthrene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Phenol	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Pyrene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Pyridine	ND	1.0		mg/Kg	1	10/21/2012 10:37:40 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 10:37:40 PM
Surr: 2,4,6-Tribromophenol	92.5	21.3-145		%REC	1	10/21/2012 10:37:40 PM
Surr: 2-Fluorobiphenyl	90.8	20-131		%REC	1	10/21/2012 10:37:40 PM
Surr: 2-Fluorophenol	83.2	11.9-130		%REC	1	10/21/2012 10:37:40 PM
Surr: 4-Terphenyl-d14	77.4	25.1-149		%REC	1	10/21/2012 10:37:40 PM
Surr: Nitrobenzene-d5	97.0	25.6-137		%REC	1	10/21/2012 10:37:40 PM
Surr: Phenol-d5	81.4	20.3-132		%REC	1	10/21/2012 10:37:40 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00154	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Toluene	0.00597	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Ethylbenzene	0.00224	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Xylenes, Total	0.0112	0.00221		mg/Kg	1	10/16/2012 2:29:51 PM
Methyl tert-butyl ether (MTBE)	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,2,4-Trimethylbenzene	0.00310	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,3,5-Trimethylbenzene	0.00111	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,2-Dichloroethane (EDC)	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,2-Dibromoethane (EDB)	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Naphthalene	ND	0.00221		mg/Kg	1	10/16/2012 2:29:51 PM
1-Methylnaphthalene	ND	0.00441		mg/Kg	1	10/16/2012 2:29:51 PM
2-Methylnaphthalene	ND	0.00441		mg/Kg	1	10/16/2012 2:29:51 PM
Acetone	0.128	0.0110		mg/Kg	1	10/16/2012 2:29:51 PM
Bromobenzene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Bromodichloromethane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Bromoform	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Bromomethane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
2-Butanone	ND	0.0110		mg/Kg	1	10/16/2012 2:29:51 PM
Carbon tetrachloride	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Chlorobenzene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Chloroethane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-021 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (0-0.5')
Collection Date: 10/12/2012 2:05:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Chloromethane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
2-Chlorotoluene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Carbon disulfide	ND	0.0110		mg/Kg	1	10/16/2012 2:29:51 PM
4-Chlorotoluene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
cis-1,2-DCE	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
cis-1,3-Dichloropropene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,2-Dibromo-3-chloropropane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Dibromochloromethane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Dibromomethane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,2-Dichlorobenzene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,3-Dichlorobenzene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,4-Dichlorobenzene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Dichlorodifluoromethane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,1-Dichloroethane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,1-Dichloroethene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,2-Dichloropropane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,3-Dichloropropane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
2,2-Dichloropropane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,1-Dichloropropene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Hexachlorobutadiene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Isopropylbenzene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
4-Isopropyltoluene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Methylene chloride	ND	0.00331		mg/Kg	1	10/16/2012 2:29:51 PM
n-Butylbenzene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
2-Hexanone	ND	0.0110		mg/Kg	1	10/16/2012 2:29:51 PM
n-Propylbenzene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
sec-Butylbenzene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Styrene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
4-Methyl-2-pentanone	ND	0.0110		mg/Kg	1	10/16/2012 2:29:51 PM
tert-Butylbenzene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,1,1,2-Tetrachloroethane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,1,2,2-Tetrachloroethane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Tetrachloroethene (PCE)	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
trans-1,2-DCE	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
trans-1,3-Dichloropropene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,2,3-Trichlorobenzene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,2,4-Trichlorobenzene	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,1,1-Trichloroethane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
1,1,2-Trichloroethane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Trichloroethene (TCE)	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Trichlorofluoromethane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-13 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/12/2012 2:05:00 PM
Lab ID: 1210692-021 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Vinyl chloride	ND	0.00110		mg/Kg	1	10/16/2012 2:29:51 PM
Surr: 1,2-Dichloroethane-d4	99.5	70-130		%REC	1	10/16/2012 2:29:51 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	10/16/2012 2:29:51 PM
Surr: Dibromofluoromethane	102	70-130		%REC	1	10/16/2012 2:29:51 PM
Surr: Toluene-d8	101	70-130		%REC	1	10/16/2012 2:29:51 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-022 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (1.5-2')
Collection Date: 10/12/2012 2:25:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	16	10		mg/Kg	1	10/16/2012 7:08:35 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/16/2012 7:08:35 PM
Surr: DNOP	92.8	77.6-140		%REC	1	10/16/2012 7:08:35 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/22/2012 3:24:06 AM
Surr: BFB	97.9	84-116		%REC	1	10/22/2012 3:24:06 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 5:31:11 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	11/2/2012 10:27:47 AM
Arsenic	ND	5.0		mg/Kg	2	11/2/2012 10:27:47 AM
Barium	310	1.0		mg/Kg	10	11/2/2012 2:53:36 PM
Beryllium	0.74	0.30		mg/Kg	2	11/2/2012 10:27:47 AM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 10:27:47 AM
Chromium	7.1	0.60		mg/Kg	2	11/2/2012 10:27:47 AM
Cobalt	3.8	0.60		mg/Kg	2	11/2/2012 10:27:47 AM
Iron	10000	500		mg/Kg	500	11/2/2012 2:56:03 PM
Lead	3.7	0.50		mg/Kg	2	11/2/2012 10:27:47 AM
Manganese	510	2.0		mg/Kg	20	11/2/2012 3:30:43 PM
Nickel	6.1	1.0		mg/Kg	2	11/2/2012 10:27:47 AM
Selenium	ND	5.0		mg/Kg	2	11/2/2012 10:27:47 AM
Silver	ND	0.50		mg/Kg	2	11/2/2012 10:27:47 AM
Vanadium	15	5.0		mg/Kg	2	11/2/2012 10:27:47 AM
Zinc	13	5.0		mg/Kg	2	11/2/2012 10:27:47 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Acenaphthylene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Aniline	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Anthracene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Azobenzene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Benzoic acid	ND	1.0		mg/Kg	1	10/21/2012 11:06:55 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-022 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (1.5-2')
Collection Date: 10/12/2012 2:25:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/21/2012 11:06:55 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Carbazole	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 11:06:55 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/21/2012 11:06:55 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/21/2012 11:06:55 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Chrysene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/21/2012 11:06:55 PM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/21/2012 11:06:55 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Dibenzofuran	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/21/2012 11:06:55 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/21/2012 11:06:55 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/21/2012 11:06:55 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 11:06:55 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/21/2012 11:06:55 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 11:06:55 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 11:06:55 PM
Fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Fluorene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Hexachloroethane	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Isophorone	ND	1.0		mg/Kg	1	10/21/2012 11:06:55 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
2-Methylphenol	ND	1.0		mg/Kg	1	10/21/2012 11:06:55 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Naphthalene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-022 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (1.5-2')
Collection Date: 10/12/2012 2:25:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/21/2012 11:06:55 PM
Nitrobenzene	ND	1.0		mg/Kg	1	10/21/2012 11:06:55 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/21/2012 11:06:55 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/21/2012 11:06:55 PM
Phenanthrene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Phenol	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Pyrene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Pyridine	ND	1.0		mg/Kg	1	10/21/2012 11:06:55 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 11:06:55 PM
Surr: 2,4,6-Tribromophenol	93.5	21.3-145		%REC	1	10/21/2012 11:06:55 PM
Surr: 2-Fluorobiphenyl	98.3	20-131		%REC	1	10/21/2012 11:06:55 PM
Surr: 2-Fluorophenol	86.2	11.9-130		%REC	1	10/21/2012 11:06:55 PM
Surr: 4-Terphenyl-d14	88.1	25.1-149		%REC	1	10/21/2012 11:06:55 PM
Surr: Nitrobenzene-d5	103	25.6-137		%REC	1	10/21/2012 11:06:55 PM
Surr: Phenol-d5	90.5	20.3-132		%REC	1	10/21/2012 11:06:55 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00142	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Toluene	0.00586	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Ethylbenzene	0.00134	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Xylenes, Total	0.00573	0.00165		mg/Kg	1	10/16/2012 3:00:38 PM
Methyl tert-butyl ether (MTBE)	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,2,4-Trimethylbenzene	0.00263	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,3,5-Trimethylbenzene	0.00102	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,2-Dichloroethane (EDC)	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,2-Dibromoethane (EDB)	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Naphthalene	ND	0.00165		mg/Kg	1	10/16/2012 3:00:38 PM
1-Methylnaphthalene	ND	0.00329		mg/Kg	1	10/16/2012 3:00:38 PM
2-Methylnaphthalene	ND	0.00329		mg/Kg	1	10/16/2012 3:00:38 PM
Acetone	0.0479	0.00823		mg/Kg	1	10/16/2012 3:00:38 PM
Bromobenzene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Bromodichloromethane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Bromoform	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Bromomethane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
2-Butanone	ND	0.00823		mg/Kg	1	10/16/2012 3:00:38 PM
Carbon tetrachloride	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Chlorobenzene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Chloroethane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-022 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (1.5-2')
Collection Date: 10/12/2012 2:25:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Chloromethane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
2-Chlorotoluene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Carbon disulfide	ND	0.00823		mg/Kg	1	10/16/2012 3:00:38 PM
4-Chlorotoluene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
cis-1,2-DCE	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
cis-1,3-Dichloropropene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,2-Dibromo-3-chloropropane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Dibromochloromethane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Dibromomethane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,2-Dichlorobenzene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,3-Dichlorobenzene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,4-Dichlorobenzene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Dichlorodifluoromethane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,1-Dichloroethane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,1-Dichloroethene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,2-Dichloropropane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,3-Dichloropropane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
2,2-Dichloropropane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,1-Dichloropropene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Hexachlorobutadiene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Isopropylbenzene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
4-Isopropyltoluene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Methylene chloride	ND	0.00247		mg/Kg	1	10/16/2012 3:00:38 PM
n-Butylbenzene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
2-Hexanone	ND	0.00823		mg/Kg	1	10/16/2012 3:00:38 PM
n-Propylbenzene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
sec-Butylbenzene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Styrene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
4-Methyl-2-pentanone	ND	0.00823		mg/Kg	1	10/16/2012 3:00:38 PM
tert-Butylbenzene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,1,1,2-Tetrachloroethane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,1,2,2-Tetrachloroethane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Tetrachloroethene (PCE)	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
trans-1,2-DCE	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
trans-1,3-Dichloropropene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,2,3-Trichlorobenzene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,2,4-Trichlorobenzene	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,1,1-Trichloroethane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
1,1,2-Trichloroethane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Trichloroethene (TCE)	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Trichlorofluoromethane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-022 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (1.5-2')
Collection Date: 10/12/2012 2:25:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Vinyl chloride	ND	0.000823		mg/Kg	1	10/16/2012 3:00:38 PM
Surr: 1,2-Dichloroethane-d4	88.2	70-130		%REC	1	10/16/2012 3:00:38 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	10/16/2012 3:00:38 PM
Surr: Dibromofluoromethane	94.1	70-130		%REC	1	10/16/2012 3:00:38 PM
Surr: Toluene-d8	86.1	70-130		%REC	1	10/16/2012 3:00:38 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-023 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (2-4')
Collection Date: 10/12/2012 2:35:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/16/2012 11:38:39 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/16/2012 11:38:39 AM
Surr: DNOP	97.8	77.6-140		%REC	1	10/16/2012 11:38:39 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/22/2012 3:52:51 AM
Surr: BFB	98.3	84-116		%REC	1	10/22/2012 3:52:51 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.17	0.033		mg/kg	1	10/23/2012 5:33:04 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	11/2/2012 10:30:13 AM
Arsenic	ND	5.0		mg/Kg	2	11/2/2012 10:30:13 AM
Barium	250	1.0		mg/Kg	10	11/2/2012 3:00:37 PM
Beryllium	0.60	0.30		mg/Kg	2	11/2/2012 10:30:13 AM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 10:30:13 AM
Chromium	22	0.60		mg/Kg	2	11/2/2012 10:30:13 AM
Cobalt	4.3	0.60		mg/Kg	2	11/2/2012 10:30:13 AM
Iron	11000	500		mg/Kg	500	11/2/2012 3:03:01 PM
Lead	4.2	0.50		mg/Kg	2	11/2/2012 10:30:13 AM
Manganese	250	1.0		mg/Kg	10	11/2/2012 3:00:37 PM
Nickel	7.0	1.0		mg/Kg	2	11/2/2012 10:30:13 AM
Selenium	ND	5.0		mg/Kg	2	11/2/2012 10:30:13 AM
Silver	ND	0.50		mg/Kg	2	11/2/2012 10:30:13 AM
Vanadium	18	5.0		mg/Kg	2	11/2/2012 10:30:13 AM
Zinc	29	5.0		mg/Kg	2	11/2/2012 10:30:13 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Aniline	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Anthracene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Azobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/21/2012 3:54:54 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-023 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (2-4')
Collection Date: 10/12/2012 2:35:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/21/2012 3:54:54 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Carbazole	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 3:54:54 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/21/2012 3:54:54 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/21/2012 3:54:54 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Chrysene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/21/2012 3:54:54 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 3:54:54 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/21/2012 3:54:54 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 3:54:54 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/21/2012 3:54:54 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 3:54:54 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/21/2012 3:54:54 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 3:54:54 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 3:54:54 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Fluorene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Isophorone	ND	0.50		mg/Kg	1	10/21/2012 3:54:54 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/21/2012 3:54:54 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Naphthalene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-023 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (2-4')
Collection Date: 10/12/2012 2:35:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 3:54:54 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/21/2012 3:54:54 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/21/2012 3:54:54 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/21/2012 3:54:54 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Phenol	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Pyrene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Pyridine	ND	0.50		mg/Kg	1	10/21/2012 3:54:54 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 3:54:54 AM
Surr: 2,4,6-Tribromophenol	102	21.3-145		%REC	1	10/21/2012 3:54:54 AM
Surr: 2-Fluorobiphenyl	89.8	20-131		%REC	1	10/21/2012 3:54:54 AM
Surr: 2-Fluorophenol	88.3	11.9-130		%REC	1	10/21/2012 3:54:54 AM
Surr: 4-Terphenyl-d14	83.4	25.1-149		%REC	1	10/21/2012 3:54:54 AM
Surr: Nitrobenzene-d5	93.8	25.6-137		%REC	1	10/21/2012 3:54:54 AM
Surr: Phenol-d5	92.4	20.3-132		%REC	1	10/21/2012 3:54:54 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Toluene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Ethylbenzene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Xylenes, Total	ND	0.00224		mg/Kg	1	10/16/2012 3:31:30 PM
Methyl tert-butyl ether (MTBE)	0.0199	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,2,4-Trimethylbenzene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,3,5-Trimethylbenzene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,2-Dichloroethane (EDC)	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,2-Dibromoethane (EDB)	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Naphthalene	ND	0.00224		mg/Kg	1	10/16/2012 3:31:30 PM
1-Methylnaphthalene	ND	0.00448		mg/Kg	1	10/16/2012 3:31:30 PM
2-Methylnaphthalene	ND	0.00448		mg/Kg	1	10/16/2012 3:31:30 PM
Acetone	0.0716	0.0112		mg/Kg	1	10/16/2012 3:31:30 PM
Bromobenzene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Bromodichloromethane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Bromoform	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Bromomethane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
2-Butanone	ND	0.0112		mg/Kg	1	10/16/2012 3:31:30 PM
Carbon tetrachloride	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Chlorobenzene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Chloroethane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-023 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (2-4')
Collection Date: 10/12/2012 2:35:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Chloromethane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
2-Chlorotoluene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Carbon disulfide	ND	0.0112		mg/Kg	1	10/16/2012 3:31:30 PM
4-Chlorotoluene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
cis-1,2-DCE	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
cis-1,3-Dichloropropene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,2-Dibromo-3-chloropropane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Dibromochloromethane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Dibromomethane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,2-Dichlorobenzene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,3-Dichlorobenzene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,4-Dichlorobenzene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Dichlorodifluoromethane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,1-Dichloroethane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,1-Dichloroethene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,2-Dichloropropane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,3-Dichloropropane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
2,2-Dichloropropane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,1-Dichloropropene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Hexachlorobutadiene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Isopropylbenzene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
4-Isopropyltoluene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Methylene chloride	ND	0.00336		mg/Kg	1	10/16/2012 3:31:30 PM
n-Butylbenzene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
2-Hexanone	ND	0.0112		mg/Kg	1	10/16/2012 3:31:30 PM
n-Propylbenzene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
sec-Butylbenzene	0.00128	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Styrene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
4-Methyl-2-pentanone	ND	0.0112		mg/Kg	1	10/16/2012 3:31:30 PM
tert-Butylbenzene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,1,1,2-Tetrachloroethane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,1,2,2-Tetrachloroethane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Tetrachloroethene (PCE)	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
trans-1,2-DCE	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
trans-1,3-Dichloropropene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,2,3-Trichlorobenzene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,2,4-Trichlorobenzene	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,1,1-Trichloroethane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
1,1,2-Trichloroethane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Trichloroethene (TCE)	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Trichlorofluoromethane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-13 (2-4')
Project: SWMU NO.1
Collection Date: 10/12/2012 2:35:00 PM
Lab ID: 1210692-023 **Matrix:** SOIL **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Vinyl chloride	ND	0.00112		mg/Kg	1	10/16/2012 3:31:30 PM
Surr: 1,2-Dichloroethane-d4	95.5	70-130		%REC	1	10/16/2012 3:31:30 PM
Surr: 4-Bromofluorobenzene	128	70-130		%REC	1	10/16/2012 3:31:30 PM
Surr: Dibromofluoromethane	105	70-130		%REC	1	10/16/2012 3:31:30 PM
Surr: Toluene-d8	102	70-130		%REC	1	10/16/2012 3:31:30 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-024 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (4-6')
Collection Date: 10/12/2012 3:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/16/2012 12:03:32 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/16/2012 12:03:32 PM
Surr: DNOP	99.1	77.6-140		%REC	1	10/16/2012 12:03:32 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/22/2012 4:21:35 AM
Surr: BFB	95.4	84-116		%REC	1	10/22/2012 4:21:35 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 5:34:52 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	11/2/2012 10:32:38 AM
Arsenic	ND	5.0		mg/Kg	2	11/2/2012 10:32:38 AM
Barium	120	1.0		mg/Kg	10	11/2/2012 3:05:52 PM
Beryllium	0.71	0.30		mg/Kg	2	11/2/2012 10:32:38 AM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 10:32:38 AM
Chromium	7.8	0.60		mg/Kg	2	11/2/2012 10:32:38 AM
Cobalt	4.1	0.60		mg/Kg	2	11/2/2012 10:32:38 AM
Iron	11000	500		mg/Kg	500	11/2/2012 3:08:17 PM
Lead	2.5	0.50		mg/Kg	2	11/2/2012 10:32:38 AM
Manganese	320	1.0		mg/Kg	10	11/2/2012 3:05:52 PM
Nickel	6.6	1.0		mg/Kg	2	11/2/2012 10:32:38 AM
Selenium	ND	5.0		mg/Kg	2	11/2/2012 10:32:38 AM
Silver	ND	0.50		mg/Kg	2	11/2/2012 10:32:38 AM
Vanadium	17	5.0		mg/Kg	2	11/2/2012 10:32:38 AM
Zinc	14	5.0		mg/Kg	2	11/2/2012 10:32:38 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Aniline	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Anthracene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Azobenzene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/21/2012 4:23:52 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-024 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (4-6')
Collection Date: 10/12/2012 3:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/21/2012 4:23:52 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Carbazole	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 4:23:52 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/21/2012 4:23:52 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/21/2012 4:23:52 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Chrysene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/21/2012 4:23:52 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 4:23:52 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/21/2012 4:23:52 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 4:23:52 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/21/2012 4:23:52 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 4:23:52 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/21/2012 4:23:52 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 4:23:52 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 4:23:52 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Fluorene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Isophorone	ND	0.50		mg/Kg	1	10/21/2012 4:23:52 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/21/2012 4:23:52 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Naphthalene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-024 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (4-6')
Collection Date: 10/12/2012 3:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 4:23:52 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/21/2012 4:23:52 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/21/2012 4:23:52 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/21/2012 4:23:52 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Phenol	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Pyrene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Pyridine	ND	0.50		mg/Kg	1	10/21/2012 4:23:52 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 4:23:52 AM
Surr: 2,4,6-Tribromophenol	103	21.3-145		%REC	1	10/21/2012 4:23:52 AM
Surr: 2-Fluorobiphenyl	96.9	20-131		%REC	1	10/21/2012 4:23:52 AM
Surr: 2-Fluorophenol	88.8	11.9-130		%REC	1	10/21/2012 4:23:52 AM
Surr: 4-Terphenyl-d14	84.5	25.1-149		%REC	1	10/21/2012 4:23:52 AM
Surr: Nitrobenzene-d5	99.5	25.6-137		%REC	1	10/21/2012 4:23:52 AM
Surr: Phenol-d5	94.5	20.3-132		%REC	1	10/21/2012 4:23:52 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Toluene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Ethylbenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Xylenes, Total	ND	0.00229		mg/Kg	1	10/16/2012 4:02:26 PM
Methyl tert-butyl ether (MTBE)	0.00300	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,2,4-Trimethylbenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,3,5-Trimethylbenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,2-Dichloroethane (EDC)	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,2-Dibromoethane (EDB)	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Naphthalene	ND	0.00229		mg/Kg	1	10/16/2012 4:02:26 PM
1-Methylnaphthalene	ND	0.00457		mg/Kg	1	10/16/2012 4:02:26 PM
2-Methylnaphthalene	ND	0.00457		mg/Kg	1	10/16/2012 4:02:26 PM
Acetone	0.0561	0.0114		mg/Kg	1	10/16/2012 4:02:26 PM
Bromobenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Bromodichloromethane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Bromoform	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Bromomethane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
2-Butanone	ND	0.0114		mg/Kg	1	10/16/2012 4:02:26 PM
Carbon tetrachloride	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Chlorobenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Chloroethane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-024 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (4-6')
Collection Date: 10/12/2012 3:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Chloromethane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
2-Chlorotoluene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Carbon disulfide	ND	0.0114		mg/Kg	1	10/16/2012 4:02:26 PM
4-Chlorotoluene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
cis-1,2-DCE	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
cis-1,3-Dichloropropene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,2-Dibromo-3-chloropropane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Dibromochloromethane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Dibromomethane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,2-Dichlorobenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,3-Dichlorobenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,4-Dichlorobenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Dichlorodifluoromethane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,1-Dichloroethane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,1-Dichloroethene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,2-Dichloropropane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,3-Dichloropropane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
2,2-Dichloropropane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,1-Dichloropropene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Hexachlorobutadiene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Isopropylbenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
4-Isopropyltoluene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Methylene chloride	ND	0.00343		mg/Kg	1	10/16/2012 4:02:26 PM
n-Butylbenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
2-Hexanone	ND	0.0114		mg/Kg	1	10/16/2012 4:02:26 PM
n-Propylbenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
sec-Butylbenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Styrene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
4-Methyl-2-pentanone	ND	0.0114		mg/Kg	1	10/16/2012 4:02:26 PM
tert-Butylbenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,1,1,2-Tetrachloroethane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,1,2,2-Tetrachloroethane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Tetrachloroethene (PCE)	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
trans-1,2-DCE	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
trans-1,3-Dichloropropene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,2,3-Trichlorobenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,2,4-Trichlorobenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,1,1-Trichloroethane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
1,1,2-Trichloroethane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Trichloroethene (TCE)	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Trichlorofluoromethane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-024 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (4-6')
Collection Date: 10/12/2012 3:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Vinyl chloride	ND	0.00114		mg/Kg	1	10/16/2012 4:02:26 PM
Surr: 1,2-Dichloroethane-d4	92.7	70-130		%REC	1	10/16/2012 4:02:26 PM
Surr: 4-Bromofluorobenzene	90.5	70-130		%REC	1	10/16/2012 4:02:26 PM
Surr: Dibromofluoromethane	95.0	70-130		%REC	1	10/16/2012 4:02:26 PM
Surr: Toluene-d8	88.5	70-130		%REC	1	10/16/2012 4:02:26 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-025 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (4-6') DUP
Collection Date: 10/12/2012 3:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/16/2012 12:28:37 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/16/2012 12:28:37 PM
Surr: DNOP	97.6	77.6-140		%REC	1	10/16/2012 12:28:37 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/22/2012 4:50:17 AM
Surr: BFB	91.2	84-116		%REC	1	10/22/2012 4:50:17 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 5:40:11 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	11/2/2012 10:35:02 AM
Arsenic	ND	5.0		mg/Kg	2	11/2/2012 10:35:02 AM
Barium	290	1.0		mg/Kg	10	11/2/2012 3:11:09 PM
Beryllium	0.68	0.30		mg/Kg	2	11/2/2012 10:35:02 AM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 10:35:02 AM
Chromium	7.3	0.60		mg/Kg	2	11/2/2012 10:35:02 AM
Cobalt	4.0	0.60		mg/Kg	2	11/2/2012 10:35:02 AM
Iron	11000	500		mg/Kg	500	11/2/2012 3:13:34 PM
Lead	3.0	0.50		mg/Kg	2	11/2/2012 10:35:02 AM
Manganese	310	1.0		mg/Kg	10	11/2/2012 3:11:09 PM
Nickel	6.5	1.0		mg/Kg	2	11/2/2012 10:35:02 AM
Selenium	ND	5.0		mg/Kg	2	11/2/2012 10:35:02 AM
Silver	ND	0.50		mg/Kg	2	11/2/2012 10:35:02 AM
Vanadium	16	5.0		mg/Kg	2	11/2/2012 10:35:02 AM
Zinc	14	5.0		mg/Kg	2	11/2/2012 10:35:02 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Aniline	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Anthracene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Azobenzene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/21/2012 4:52:46 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-025 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (4-6') DUP
Collection Date: 10/12/2012 3:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/21/2012 4:52:46 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Carbazole	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 4:52:46 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/21/2012 4:52:46 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/21/2012 4:52:46 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Chrysene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/21/2012 4:52:46 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 4:52:46 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/21/2012 4:52:46 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 4:52:46 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/21/2012 4:52:46 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 4:52:46 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/21/2012 4:52:46 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 4:52:46 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 4:52:46 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Fluorene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Isophorone	ND	0.50		mg/Kg	1	10/21/2012 4:52:46 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/21/2012 4:52:46 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Naphthalene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-025 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (4-6') DUP
Collection Date: 10/12/2012 3:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 4:52:46 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/21/2012 4:52:46 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/21/2012 4:52:46 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/21/2012 4:52:46 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Phenol	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Pyrene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Pyridine	ND	0.50		mg/Kg	1	10/21/2012 4:52:46 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 4:52:46 AM
Surr: 2,4,6-Tribromophenol	90.7	21.3-145		%REC	1	10/21/2012 4:52:46 AM
Surr: 2-Fluorobiphenyl	92.2	20-131		%REC	1	10/21/2012 4:52:46 AM
Surr: 2-Fluorophenol	91.5	11.9-130		%REC	1	10/21/2012 4:52:46 AM
Surr: 4-Terphenyl-d14	84.4	25.1-149		%REC	1	10/21/2012 4:52:46 AM
Surr: Nitrobenzene-d5	95.9	25.6-137		%REC	1	10/21/2012 4:52:46 AM
Surr: Phenol-d5	96.3	20.3-132		%REC	1	10/21/2012 4:52:46 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Toluene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Ethylbenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Xylenes, Total	ND	0.00227		mg/Kg	1	10/16/2012 4:33:18 PM
Methyl tert-butyl ether (MTBE)	0.00604	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,2,4-Trimethylbenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,3,5-Trimethylbenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,2-Dichloroethane (EDC)	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,2-Dibromoethane (EDB)	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Naphthalene	ND	0.00227		mg/Kg	1	10/16/2012 4:33:18 PM
1-Methylnaphthalene	ND	0.00455		mg/Kg	1	10/16/2012 4:33:18 PM
2-Methylnaphthalene	ND	0.00455		mg/Kg	1	10/16/2012 4:33:18 PM
Acetone	0.0645	0.0114		mg/Kg	1	10/16/2012 4:33:18 PM
Bromobenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Bromodichloromethane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Bromoform	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Bromomethane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
2-Butanone	ND	0.0114		mg/Kg	1	10/16/2012 4:33:18 PM
Carbon tetrachloride	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Chlorobenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Chloroethane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-025 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (4-6') DUP
Collection Date: 10/12/2012 3:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Chloromethane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
2-Chlorotoluene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Carbon disulfide	ND	0.0114		mg/Kg	1	10/16/2012 4:33:18 PM
4-Chlorotoluene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
cis-1,2-DCE	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
cis-1,3-Dichloropropene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,2-Dibromo-3-chloropropane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Dibromochloromethane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Dibromomethane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,2-Dichlorobenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,3-Dichlorobenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,4-Dichlorobenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Dichlorodifluoromethane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,1-Dichloroethane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,1-Dichloroethene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,2-Dichloropropane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,3-Dichloropropane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
2,2-Dichloropropane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,1-Dichloropropene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Hexachlorobutadiene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Isopropylbenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
4-Isopropyltoluene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Methylene chloride	ND	0.00341		mg/Kg	1	10/16/2012 4:33:18 PM
n-Butylbenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
2-Hexanone	ND	0.0114		mg/Kg	1	10/16/2012 4:33:18 PM
n-Propylbenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
sec-Butylbenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Styrene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
4-Methyl-2-pentanone	ND	0.0114		mg/Kg	1	10/16/2012 4:33:18 PM
tert-Butylbenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,1,1,2-Tetrachloroethane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,1,2,2-Tetrachloroethane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Tetrachloroethene (PCE)	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
trans-1,2-DCE	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
trans-1,3-Dichloropropene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,2,3-Trichlorobenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,2,4-Trichlorobenzene	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,1,1-Trichloroethane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
1,1,2-Trichloroethane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Trichloroethene (TCE)	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Trichlorofluoromethane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-025 **Matrix:** SOIL

Client Sample ID: SWMU 1-13 (4-6') DUP
Collection Date: 10/12/2012 3:00:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Vinyl chloride	ND	0.00114		mg/Kg	1	10/16/2012 4:33:18 PM
Surr: 1,2-Dichloroethane-d4	92.1	70-130		%REC	1	10/16/2012 4:33:18 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	10/16/2012 4:33:18 PM
Surr: Dibromofluoromethane	97.5	70-130		%REC	1	10/16/2012 4:33:18 PM
Surr: Toluene-d8	84.7	70-130		%REC	1	10/16/2012 4:33:18 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-026 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-37 GW
Collection Date: 10/11/2012 10:00:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	1.0	1.0		mg/L	1	10/16/2012 11:18:43 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/16/2012 11:18:43 PM
Surr: DNOP	112	79.5-166		%REC	1	10/16/2012 11:18:43 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	1.4	0.50		mg/L	5	10/17/2012 10:22:10 PM
Chloride	1100	50		mg/L	100	10/17/2012 10:09:45 PM
Sulfate	500	10		mg/L	20	10/15/2012 1:54:26 PM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	0.24	0.0020		mg/L	1	10/19/2012 9:09:18 PM
Beryllium	ND	0.0020		mg/L	1	10/19/2012 9:09:18 PM
Cadmium	ND	0.0020		mg/L	1	10/19/2012 9:09:18 PM
Chromium	ND	0.0060		mg/L	1	10/19/2012 9:09:18 PM
Cobalt	0.026	0.0060		mg/L	1	10/19/2012 9:09:18 PM
Iron	2.5	0.10	*	mg/L	5	10/23/2012 1:33:03 PM
Manganese	1.1	0.010	*	mg/L	5	10/19/2012 9:12:15 PM
Nickel	0.26	0.010	*	mg/L	1	10/19/2012 9:09:18 PM
Silver	ND	0.0050		mg/L	1	10/19/2012 9:09:18 PM
Vanadium	ND	0.050		mg/L	1	10/19/2012 9:09:18 PM
Zinc	0.023	0.010		mg/L	1	10/19/2012 9:09:18 PM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0025		mg/L	2.5	10/24/2012 5:14:06 PM
Arsenic	0.0082	0.0025		mg/L	2.5	10/24/2012 5:14:06 PM
Lead	0.0041	0.0025		mg/L	2.5	10/24/2012 5:14:06 PM
Selenium	0.0072	0.0025		mg/L	2.5	11/12/2012 7:36:28 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	10/24/2012 7:35:33 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Acenaphthylene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Aniline	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Anthracene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Azobenzene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Benz(a)anthracene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Benzoic acid	ND	20		µg/L	1	10/20/2012 7:38:38 PM
Benzyl alcohol	ND	10		µg/L	1	10/20/2012 7:38:38 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 GW
Project: SWMU NO.1
Collection Date: 10/11/2012 10:00:00 AM
Lab ID: 1210692-026
Matrix: AQUEOUS
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/20/2012 7:38:38 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Carbazole	ND	10		µg/L	1	10/20/2012 7:38:38 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/20/2012 7:38:38 PM
4-Chloroaniline	ND	10		µg/L	1	10/20/2012 7:38:38 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
2-Chlorophenol	ND	10		µg/L	1	10/20/2012 7:38:38 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Chrysene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Di-n-octyl phthalate	ND	20		µg/L	1	10/20/2012 7:38:38 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Dibenzofuran	ND	10		µg/L	1	10/20/2012 7:38:38 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Diethyl phthalate	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Dimethyl phthalate	ND	10		µg/L	1	10/20/2012 7:38:38 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/20/2012 7:38:38 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/20/2012 7:38:38 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/20/2012 7:38:38 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/20/2012 7:38:38 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Fluoranthene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Fluorene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Hexachlorobenzene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Hexachloroethane	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Isophorone	ND	10		µg/L	1	10/20/2012 7:38:38 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
2-Methylphenol	ND	10		µg/L	1	10/20/2012 7:38:38 PM
3+4-Methylphenol	ND	10		µg/L	1	10/20/2012 7:38:38 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/20/2012 7:38:38 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-026 **Matrix:** AQUEOUS

Client Sample ID: SWMU 1-37 GW
Collection Date: 10/11/2012 10:00:00 AM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
N-Nitrosodimethylamine	ND	10		µg/L	1	10/20/2012 7:38:38 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Naphthalene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
2-Nitroaniline	ND	10		µg/L	1	10/20/2012 7:38:38 PM
3-Nitroaniline	ND	10		µg/L	1	10/20/2012 7:38:38 PM
4-Nitroaniline	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Nitrobenzene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
2-Nitrophenol	ND	10		µg/L	1	10/20/2012 7:38:38 PM
4-Nitrophenol	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Pentachlorophenol	ND	20		µg/L	1	10/20/2012 7:38:38 PM
Phenanthrene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Phenol	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Pyrene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Pyridine	ND	10		µg/L	1	10/20/2012 7:38:38 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/20/2012 7:38:38 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/20/2012 7:38:38 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/20/2012 7:38:38 PM
Surr: 2,4,6-Tribromophenol	94.8	42.9-124		%REC	1	10/20/2012 7:38:38 PM
Surr: 2-Fluorobiphenyl	87.0	40-108		%REC	1	10/20/2012 7:38:38 PM
Surr: 2-Fluorophenol	59.8	23.6-94.8		%REC	1	10/20/2012 7:38:38 PM
Surr: 4-Terphenyl-d14	82.4	41.9-103		%REC	1	10/20/2012 7:38:38 PM
Surr: Nitrobenzene-d5	85.3	42.6-114		%REC	1	10/20/2012 7:38:38 PM
Surr: Phenol-d5	45.8	20.3-74.7		%REC	1	10/20/2012 7:38:38 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	1.1	1.0		µg/L	1	10/18/2012 1:11:24 AM
Toluene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
Ethylbenzene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
Methyl tert-butyl ether (MTBE)	130	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
Naphthalene	ND	2.0		µg/L	1	10/18/2012 1:11:24 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/18/2012 1:11:24 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/18/2012 1:11:24 AM
Acetone	39	10		µg/L	1	10/18/2012 1:11:24 AM
Bromobenzene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
Bromodichloromethane	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
Bromoform	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
Bromomethane	ND	3.0		µg/L	1	10/18/2012 1:11:24 AM
2-Butanone	ND	10		µg/L	1	10/18/2012 1:11:24 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 GW
Project: SWMU NO.1
Collection Date: 10/11/2012 10:00:00 AM
Lab ID: 1210692-026 **Matrix:** AQUEOUS **Received Date:** 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Carbon disulfide	ND	10		µg/L	1	10/18/2012 1:11:24 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
Chlorobenzene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
Chloroethane	ND	2.0		µg/L	1	10/18/2012 1:11:24 AM
Chloroform	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
Chloromethane	ND	3.0		µg/L	1	10/18/2012 1:11:24 AM
2-Chlorotoluene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
4-Chlorotoluene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
cis-1,2-DCE	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/18/2012 1:11:24 AM
Dibromochloromethane	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
Dibromomethane	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/18/2012 1:11:24 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
2-Hexanone	ND	10		µg/L	1	10/18/2012 1:11:24 AM
Isopropylbenzene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
4-Isopropyltoluene	12	1.0		µg/L	1	10/18/2012 1:11:24 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/18/2012 1:11:24 AM
Methylene Chloride	ND	3.0		µg/L	1	10/18/2012 1:11:24 AM
n-Butylbenzene	ND	3.0		µg/L	1	10/18/2012 1:11:24 AM
n-Propylbenzene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
sec-Butylbenzene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
Styrene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
tert-Butylbenzene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/18/2012 1:11:24 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
trans-1,2-DCE	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-37 GW
Project: SWMU NO.1
Collection Date: 10/11/2012 10:00:00 AM
Lab ID: 1210692-026
Matrix: AQUEOUS
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/18/2012 1:11:24 AM
Vinyl chloride	ND	1.0		µg/L	1	10/18/2012 1:11:24 AM
Xylenes, Total	ND	1.5		µg/L	1	10/18/2012 1:11:24 AM
Surr: 1,2-Dichloroethane-d4	94.5	70-130		%REC	1	10/18/2012 1:11:24 AM
Surr: 4-Bromofluorobenzene	92.7	70-130		%REC	1	10/18/2012 1:11:24 AM
Surr: Dibromofluoromethane	95.6	70-130		%REC	1	10/18/2012 1:11:24 AM
Surr: Toluene-d8	95.4	70-130		%REC	1	10/18/2012 1:11:24 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	0.56	0.050		mg/L	1	10/20/2012 7:59:17 PM
Surr: BFB	93.0	70-130		%REC	1	10/20/2012 7:59:17 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB101112
Project: SWMU NO.1
Collection Date: 10/11/2012 3:45:00 PM
Lab ID: 1210692-027
Matrix: AQUEOUS
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/16/2012 11:43:35 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/16/2012 11:43:35 PM
Surr: DNOP	106	79.5-166		%REC	1	10/16/2012 11:43:35 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	ND	0.10		mg/L	1	10/17/2012 10:34:35 PM
Chloride	ND	0.50		mg/L	1	10/17/2012 10:34:35 PM
Sulfate	ND	0.50		mg/L	1	10/17/2012 10:34:35 PM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	ND	0.0020		mg/L	1	10/19/2012 9:15:39 PM
Beryllium	ND	0.0020		mg/L	1	10/19/2012 9:15:39 PM
Cadmium	ND	0.0020		mg/L	1	10/19/2012 9:15:39 PM
Chromium	ND	0.0060		mg/L	1	10/19/2012 9:15:39 PM
Cobalt	ND	0.0060		mg/L	1	10/19/2012 9:15:39 PM
Iron	0.13	0.020		mg/L	1	10/23/2012 1:37:58 PM
Manganese	ND	0.0020		mg/L	1	10/19/2012 9:15:39 PM
Nickel	ND	0.010		mg/L	1	10/19/2012 9:15:39 PM
Silver	ND	0.0050		mg/L	1	10/19/2012 9:15:39 PM
Vanadium	ND	0.050		mg/L	1	10/19/2012 9:15:39 PM
Zinc	ND	0.010		mg/L	1	10/19/2012 9:15:39 PM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0025		mg/L	2.5	10/19/2012 3:29:45 PM
Arsenic	ND	0.0025		mg/L	2.5	10/19/2012 3:29:45 PM
Lead	ND	0.0025		mg/L	2.5	10/19/2012 3:29:45 PM
Selenium	ND	0.0025		mg/L	2.5	10/19/2012 3:29:45 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	10/24/2012 7:37:19 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Acenaphthylene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Aniline	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Anthracene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Azobenzene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Benz(a)anthracene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Benzoic acid	ND	20		µg/L	1	10/20/2012 8:07:55 PM
Benzyl alcohol	ND	10		µg/L	1	10/20/2012 8:07:55 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB101112
Project: SWMU NO.1
Collection Date: 10/11/2012 3:45:00 PM
Lab ID: 1210692-027
Matrix: AQUEOUS
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/20/2012 8:07:55 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Carbazole	ND	10		µg/L	1	10/20/2012 8:07:55 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/20/2012 8:07:55 PM
4-Chloroaniline	ND	10		µg/L	1	10/20/2012 8:07:55 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
2-Chlorophenol	ND	10		µg/L	1	10/20/2012 8:07:55 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Chrysene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Di-n-octyl phthalate	ND	20		µg/L	1	10/20/2012 8:07:55 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Dibenzofuran	ND	10		µg/L	1	10/20/2012 8:07:55 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Diethyl phthalate	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Dimethyl phthalate	ND	10		µg/L	1	10/20/2012 8:07:55 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/20/2012 8:07:55 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/20/2012 8:07:55 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/20/2012 8:07:55 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/20/2012 8:07:55 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Fluoranthene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Fluorene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Hexachlorobenzene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Hexachloroethane	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Isophorone	ND	10		µg/L	1	10/20/2012 8:07:55 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
2-Methylphenol	ND	10		µg/L	1	10/20/2012 8:07:55 PM
3+4-Methylphenol	ND	10		µg/L	1	10/20/2012 8:07:55 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/20/2012 8:07:55 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-027 **Matrix:** AQUEOUS

Client Sample ID: EB101112
Collection Date: 10/11/2012 3:45:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
N-Nitrosodimethylamine	ND	10		µg/L	1	10/20/2012 8:07:55 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Naphthalene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
2-Nitroaniline	ND	10		µg/L	1	10/20/2012 8:07:55 PM
3-Nitroaniline	ND	10		µg/L	1	10/20/2012 8:07:55 PM
4-Nitroaniline	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Nitrobenzene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
2-Nitrophenol	ND	10		µg/L	1	10/20/2012 8:07:55 PM
4-Nitrophenol	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Pentachlorophenol	ND	20		µg/L	1	10/20/2012 8:07:55 PM
Phenanthrene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Phenol	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Pyrene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Pyridine	ND	10		µg/L	1	10/20/2012 8:07:55 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/20/2012 8:07:55 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/20/2012 8:07:55 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/20/2012 8:07:55 PM
Surr: 2,4,6-Tribromophenol	96.8	42.9-124		%REC	1	10/20/2012 8:07:55 PM
Surr: 2-Fluorobiphenyl	87.7	40-108		%REC	1	10/20/2012 8:07:55 PM
Surr: 2-Fluorophenol	61.3	23.6-94.8		%REC	1	10/20/2012 8:07:55 PM
Surr: 4-Terphenyl-d14	84.0	41.9-103		%REC	1	10/20/2012 8:07:55 PM
Surr: Nitrobenzene-d5	96.4	42.6-114		%REC	1	10/20/2012 8:07:55 PM
Surr: Phenol-d5	49.5	20.3-74.7		%REC	1	10/20/2012 8:07:55 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
Toluene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
Ethylbenzene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
Naphthalene	ND	2.0		µg/L	1	10/18/2012 2:07:44 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/18/2012 2:07:44 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/18/2012 2:07:44 AM
Acetone	ND	10		µg/L	1	10/18/2012 2:07:44 AM
Bromobenzene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
Bromodichloromethane	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
Bromoform	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
Bromomethane	ND	3.0		µg/L	1	10/18/2012 2:07:44 AM
2-Butanone	ND	10		µg/L	1	10/18/2012 2:07:44 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-027 **Matrix:** AQUEOUS

Client Sample ID: EB101112
Collection Date: 10/11/2012 3:45:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Carbon disulfide	ND	10		µg/L	1	10/18/2012 2:07:44 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
Chlorobenzene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
Chloroethane	ND	2.0		µg/L	1	10/18/2012 2:07:44 AM
Chloroform	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
Chloromethane	ND	3.0		µg/L	1	10/18/2012 2:07:44 AM
2-Chlorotoluene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
4-Chlorotoluene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
cis-1,2-DCE	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/18/2012 2:07:44 AM
Dibromochloromethane	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
Dibromomethane	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/18/2012 2:07:44 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
2-Hexanone	ND	10		µg/L	1	10/18/2012 2:07:44 AM
Isopropylbenzene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/18/2012 2:07:44 AM
Methylene Chloride	ND	3.0		µg/L	1	10/18/2012 2:07:44 AM
n-Butylbenzene	ND	3.0		µg/L	1	10/18/2012 2:07:44 AM
n-Propylbenzene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
sec-Butylbenzene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
Styrene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
tert-Butylbenzene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/18/2012 2:07:44 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
trans-1,2-DCE	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB101112
Project: SWMU NO.1
Collection Date: 10/11/2012 3:45:00 PM
Lab ID: 1210692-027
Matrix: AQUEOUS
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/18/2012 2:07:44 AM
Vinyl chloride	ND	1.0		µg/L	1	10/18/2012 2:07:44 AM
Xylenes, Total	ND	1.5		µg/L	1	10/18/2012 2:07:44 AM
Surr: 1,2-Dichloroethane-d4	89.8	70-130		%REC	1	10/18/2012 2:07:44 AM
Surr: 4-Bromofluorobenzene	95.7	70-130		%REC	1	10/18/2012 2:07:44 AM
Surr: Dibromofluoromethane	93.3	70-130		%REC	1	10/18/2012 2:07:44 AM
Surr: Toluene-d8	93.5	70-130		%REC	1	10/18/2012 2:07:44 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/20/2012 8:27:45 PM
Surr: BFB	93.1	70-130		%REC	1	10/20/2012 8:27:45 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-028 **Matrix:** AQUEOUS

Client Sample ID: EB101212
Collection Date: 10/12/2012 4:20:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/17/2012 12:08:42 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/17/2012 12:08:42 AM
Surr: DNOP	117	79.5-166		%REC	1	10/17/2012 12:08:42 AM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	ND	0.10		mg/L	1	10/15/2012 5:13:00 PM
Chloride	ND	0.50		mg/L	1	10/15/2012 5:13:00 PM
Sulfate	ND	0.50		mg/L	1	10/15/2012 5:13:00 PM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	ND	0.0020		mg/L	1	10/17/2012 9:19:39 PM
Beryllium	ND	0.0020		mg/L	1	10/17/2012 9:19:39 PM
Cadmium	ND	0.0020		mg/L	1	10/17/2012 9:19:39 PM
Chromium	ND	0.0060		mg/L	1	10/17/2012 9:19:39 PM
Cobalt	ND	0.0060		mg/L	1	10/17/2012 9:19:39 PM
Iron	ND	0.020		mg/L	1	10/18/2012 1:59:51 PM
Manganese	ND	0.0020		mg/L	1	10/17/2012 9:19:39 PM
Nickel	ND	0.010		mg/L	1	10/17/2012 9:19:39 PM
Silver	ND	0.0050		mg/L	1	10/17/2012 9:19:39 PM
Vanadium	ND	0.050		mg/L	1	10/17/2012 9:19:39 PM
Zinc	ND	0.010		mg/L	1	10/17/2012 9:19:39 PM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0010		mg/L	1	10/25/2012 7:18:12 PM
Arsenic	ND	0.0010		mg/L	1	10/25/2012 7:18:12 PM
Lead	ND	0.0010		mg/L	1	10/25/2012 7:18:12 PM
Selenium	ND	0.0010		mg/L	1	10/25/2012 7:18:12 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	10/24/2012 7:39:06 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Acenaphthylene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Aniline	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Anthracene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Azobenzene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Benz(a)anthracene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Benzoic acid	ND	20		µg/L	1	10/20/2012 8:37:13 PM
Benzyl alcohol	ND	10		µg/L	1	10/20/2012 8:37:13 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-028 **Matrix:** AQUEOUS

Client Sample ID: EB101212
Collection Date: 10/12/2012 4:20:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/20/2012 8:37:13 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Carbazole	ND	10		µg/L	1	10/20/2012 8:37:13 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/20/2012 8:37:13 PM
4-Chloroaniline	ND	10		µg/L	1	10/20/2012 8:37:13 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
2-Chlorophenol	ND	10		µg/L	1	10/20/2012 8:37:13 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Chrysene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Di-n-octyl phthalate	ND	20		µg/L	1	10/20/2012 8:37:13 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Dibenzofuran	ND	10		µg/L	1	10/20/2012 8:37:13 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Diethyl phthalate	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Dimethyl phthalate	ND	10		µg/L	1	10/20/2012 8:37:13 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/20/2012 8:37:13 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/20/2012 8:37:13 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/20/2012 8:37:13 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/20/2012 8:37:13 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Fluoranthene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Fluorene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Hexachlorobenzene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Hexachloroethane	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Isophorone	ND	10		µg/L	1	10/20/2012 8:37:13 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
2-Methylphenol	ND	10		µg/L	1	10/20/2012 8:37:13 PM
3+4-Methylphenol	ND	10		µg/L	1	10/20/2012 8:37:13 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/20/2012 8:37:13 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB101212
Project: SWMU NO.1
Collection Date: 10/12/2012 4:20:00 PM
Lab ID: 1210692-028
Matrix: AQUEOUS
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
N-Nitrosodimethylamine	ND	10		µg/L	1	10/20/2012 8:37:13 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Naphthalene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
2-Nitroaniline	ND	10		µg/L	1	10/20/2012 8:37:13 PM
3-Nitroaniline	ND	10		µg/L	1	10/20/2012 8:37:13 PM
4-Nitroaniline	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Nitrobenzene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
2-Nitrophenol	ND	10		µg/L	1	10/20/2012 8:37:13 PM
4-Nitrophenol	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Pentachlorophenol	ND	20		µg/L	1	10/20/2012 8:37:13 PM
Phenanthrene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Phenol	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Pyrene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Pyridine	ND	10		µg/L	1	10/20/2012 8:37:13 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/20/2012 8:37:13 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/20/2012 8:37:13 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/20/2012 8:37:13 PM
Surr: 2,4,6-Tribromophenol	90.5	42.9-124		%REC	1	10/20/2012 8:37:13 PM
Surr: 2-Fluorobiphenyl	87.6	40-108		%REC	1	10/20/2012 8:37:13 PM
Surr: 2-Fluorophenol	56.6	23.6-94.8		%REC	1	10/20/2012 8:37:13 PM
Surr: 4-Terphenyl-d14	84.3	41.9-103		%REC	1	10/20/2012 8:37:13 PM
Surr: Nitrobenzene-d5	84.6	42.6-114		%REC	1	10/20/2012 8:37:13 PM
Surr: Phenol-d5	47.1	20.3-74.7		%REC	1	10/20/2012 8:37:13 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
Toluene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
Ethylbenzene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
Naphthalene	ND	2.0		µg/L	1	10/18/2012 2:35:59 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/18/2012 2:35:59 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/18/2012 2:35:59 AM
Acetone	ND	10		µg/L	1	10/18/2012 2:35:59 AM
Bromobenzene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
Bromodichloromethane	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
Bromoform	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
Bromomethane	ND	3.0		µg/L	1	10/18/2012 2:35:59 AM
2-Butanone	ND	10		µg/L	1	10/18/2012 2:35:59 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-028 **Matrix:** AQUEOUS

Client Sample ID: EB101212
Collection Date: 10/12/2012 4:20:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Carbon disulfide	ND	10		µg/L	1	10/18/2012 2:35:59 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
Chlorobenzene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
Chloroethane	ND	2.0		µg/L	1	10/18/2012 2:35:59 AM
Chloroform	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
Chloromethane	ND	3.0		µg/L	1	10/18/2012 2:35:59 AM
2-Chlorotoluene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
4-Chlorotoluene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
cis-1,2-DCE	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/18/2012 2:35:59 AM
Dibromochloromethane	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
Dibromomethane	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/18/2012 2:35:59 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
2-Hexanone	ND	10		µg/L	1	10/18/2012 2:35:59 AM
Isopropylbenzene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/18/2012 2:35:59 AM
Methylene Chloride	ND	3.0		µg/L	1	10/18/2012 2:35:59 AM
n-Butylbenzene	ND	3.0		µg/L	1	10/18/2012 2:35:59 AM
n-Propylbenzene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
sec-Butylbenzene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
Styrene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
tert-Butylbenzene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/18/2012 2:35:59 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
trans-1,2-DCE	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-028 **Matrix:** AQUEOUS

Client Sample ID: EB101212
Collection Date: 10/12/2012 4:20:00 PM
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/18/2012 2:35:59 AM
Vinyl chloride	ND	1.0		µg/L	1	10/18/2012 2:35:59 AM
Xylenes, Total	ND	1.5		µg/L	1	10/18/2012 2:35:59 AM
Surr: 1,2-Dichloroethane-d4	93.5	70-130		%REC	1	10/18/2012 2:35:59 AM
Surr: 4-Bromofluorobenzene	92.1	70-130		%REC	1	10/18/2012 2:35:59 AM
Surr: Dibromofluoromethane	94.7	70-130		%REC	1	10/18/2012 2:35:59 AM
Surr: Toluene-d8	95.9	70-130		%REC	1	10/18/2012 2:35:59 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/20/2012 8:56:02 PM
Surr: BFB	91.6	70-130		%REC	1	10/20/2012 8:56:02 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: SWMU NO.1
Collection Date:
Lab ID: 1210692-029
Matrix: TRIP BLANK
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
Toluene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
Ethylbenzene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
Naphthalene	ND	2.0		µg/L	1	10/18/2012 5:27:32 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/18/2012 5:27:32 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/18/2012 5:27:32 AM
Acetone	ND	10		µg/L	1	10/18/2012 5:27:32 AM
Bromobenzene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
Bromodichloromethane	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
Bromoform	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
Bromomethane	ND	3.0		µg/L	1	10/18/2012 5:27:32 AM
2-Butanone	ND	10		µg/L	1	10/18/2012 5:27:32 AM
Carbon disulfide	ND	10		µg/L	1	10/18/2012 5:27:32 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
Chlorobenzene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
Chloroethane	ND	2.0		µg/L	1	10/18/2012 5:27:32 AM
Chloroform	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
Chloromethane	ND	3.0		µg/L	1	10/18/2012 5:27:32 AM
2-Chlorotoluene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
4-Chlorotoluene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
cis-1,2-DCE	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/18/2012 5:27:32 AM
Dibromochloromethane	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
Dibromomethane	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/18/2012 5:27:32 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
2-Hexanone	ND	10		µg/L	1	10/18/2012 5:27:32 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210692-029
Client Sample ID: Trip Blank
Collection Date:
Matrix: TRIP BLANK
Received Date: 10/13/2012 8:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Isopropylbenzene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/18/2012 5:27:32 AM
Methylene Chloride	ND	3.0		µg/L	1	10/18/2012 5:27:32 AM
n-Butylbenzene	ND	3.0		µg/L	1	10/18/2012 5:27:32 AM
n-Propylbenzene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
sec-Butylbenzene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
Styrene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
tert-Butylbenzene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/18/2012 5:27:32 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
trans-1,2-DCE	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/18/2012 5:27:32 AM
Vinyl chloride	ND	1.0		µg/L	1	10/18/2012 5:27:32 AM
Xylenes, Total	ND	1.5		µg/L	1	10/18/2012 5:27:32 AM
Surr: 1,2-Dichloroethane-d4	90.3	70-130		%REC	1	10/18/2012 5:27:32 AM
Surr: 4-Bromofluorobenzene	94.9	70-130		%REC	1	10/18/2012 5:27:32 AM
Surr: Dibromofluoromethane	91.9	70-130		%REC	1	10/18/2012 5:27:32 AM
Surr: Toluene-d8	93.0	70-130		%REC	1	10/18/2012 5:27:32 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/20/2012 9:24:15 PM
Surr: BFB	99.9	70-130		%REC	1	10/20/2012 9:24:15 PM

Qualifiers:

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

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

Batch #: 121017007
Project Name: 1210692

Analytical Results Report

Sample Number 121017007-001 **Sampling Date** 10/11/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-001D / SWMU 1-20 (0-0.5) **Sampling Time** 12:20 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.247	10/25/2012	CRW	EPA 335.4	
%moisture	1.9	Percent		10/24/2012	CRW	%moisture	

Sample Number 121017007-002 **Sampling Date** 10/11/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-002D / SWMU 1-20 (0-0.5) DUP **Sampling Time** 12:20 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.277	10/25/2012	CRW	EPA 335.4	
%moisture	1.9	Percent		10/24/2012	CRW	%moisture	

Sample Number 121017007-003 **Sampling Date** 10/11/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-003D / SWMU 1-20 (1.5-2) **Sampling Time** 12:30 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.256	10/25/2012	CRW	EPA 335.4	
%moisture	4.9	Percent		10/24/2012	CRW	%moisture	

Sample Number 121017007-004 **Sampling Date** 10/11/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-004D / SWMU 1-20 (4-6) **Sampling Time** 12:45 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.278	10/25/2012	CRW	EPA 335.4	
%moisture	10.4	Percent		10/24/2012	CRW	%moisture	

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

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

Batch #: 121017007
Project Name: 1210692

Analytical Results Report

Sample Number 121017007-005 **Sampling Date** 10/11/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-005D / SWMU 1-20 (10-12) **Sampling Time** 1:00 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.293	10/25/2012	CRW	EPA 335.4	
%moisture	14.7	Percent		10/24/2012	CRW	%moisture	

Sample Number 121017007-006 **Sampling Date** 10/11/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-006D / SWMU 1-38 (0-0.5) **Sampling Time** 2:20 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.995	mg/Kg	0.27	10/25/2012	CRW	EPA 335.4	
%moisture	7.9	Percent		10/24/2012	CRW	%moisture	

Sample Number 121017007-007 **Sampling Date** 10/11/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-007D / SWMU 1-38 (1.5-2) **Sampling Time** 2:30 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.299	mg/Kg	0.284	10/25/2012	CRW	EPA 335.4	
%moisture	12.5	Percent		10/24/2012	CRW	%moisture	

Sample Number 121017007-008 **Sampling Date** 10/11/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-008D / SWMU 1-38 (6-8) **Sampling Time** 2:45 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.293	10/25/2012	CRW	EPA 335.4	
%moisture	17	Percent		10/24/2012	CRW	%moisture	

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

Batch #: 121017007
Project Name: 1210692

Analytical Results Report

Sample Number 121017007-009 **Sampling Date** 10/12/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-009D / SWMU 1-27 (0-0.5) **Sampling Time** 9:00 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.282	mg/Kg	0.258	10/25/2012	CRW	EPA 335.4	
%moisture	2.9	Percent		10/24/2012	CRW	%moisture	

Sample Number 121017007-010 **Sampling Date** 10/12/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-010D / SWMU 1-27 (1.5-2) **Sampling Time** 9:15 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.26	10/25/2012	CRW	EPA 335.4	
%moisture	4.1	Percent		10/30/2012	CRW	%moisture	

Sample Number 121017007-011 **Sampling Date** 10/12/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-011D / SWMU 1-28 (0-0.5) **Sampling Time** 9:50 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	1.43	mg/Kg	0.258	10/25/2012	CRW	EPA 335.4	
%moisture	3.6	Percent		10/30/2012	CRW	%moisture	

Sample Number 121017007-012 **Sampling Date** 10/12/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-012D / SWMU 1-28 (1.5-2) **Sampling Time** 10:10 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.267	10/25/2012	CRW	EPA 335.4	
%moisture	6.5	Percent		10/30/2012	CRW	%moisture	

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

Batch #: 121017007
Project Name: 1210692

Analytical Results Report

Sample Number 121017007-013 **Sampling Date** 10/12/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-013D / SWMU 1-28 (1.5-2) DUP **Sampling Time** 10:10 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.262	10/26/2012	CRW	EPA 335.4	
%moisture	5	Percent		10/30/2012	CRW	%moisture	

Sample Number 121017007-014 **Sampling Date** 10/12/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-014D / SWMU 1-30 (0-0.5) **Sampling Time** 11:40 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.633	mg/Kg	0.26	10/26/2012	CRW	EPA 335.4	
%moisture	4.1	Percent		10/30/2012	CRW	%moisture	

Sample Number 121017007-015 **Sampling Date** 10/12/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-015D / SWMU 1-30 (1.5-2) **Sampling Time** 12:00 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.274	10/26/2012	CRW	EPA 335.4	
%moisture	9	Percent		10/30/2012	CRW	%moisture	

Sample Number 121017007-016 **Sampling Date** 10/12/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-016D / SWMU 1-30 (4-6) **Sampling Time** 12:10 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.282	10/26/2012	CRW	EPA 335.4	
%moisture	12.1	Percent		10/30/2012	CRW	%moisture	

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

Batch #: 121017007
Project Name: 1210692

Analytical Results Report

Sample Number 121017007-017 **Sampling Date** 10/12/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-017D / SWMU 1-35 (0-0.5) **Sampling Time** 12:45 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.276	mg/Kg	0.263	10/26/2012	CRW	EPA 335.4	
%moisture	9.9	Percent		10/30/2012	CRW	%moisture	

Sample Number 121017007-018 **Sampling Date** 10/12/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-018D / SWMU 1-35 (1.5-2) **Sampling Time** 1:00 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.287	mg/Kg	0.278	10/26/2012	CRW	EPA 335.4	
%moisture	10	Percent		10/30/2012	CRW	%moisture	

Sample Number 121017007-019 **Sampling Date** 10/12/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-019D / SWMU 1-35 (4-6) **Sampling Time** 1:10 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.287	10/26/2012	CRW	EPA 335.4	
%moisture	13.8	Percent		10/30/2012	CRW	%moisture	

Sample Number 121017007-020 **Sampling Date** 10/12/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-021D / SWMU 1-13 (0-0.5) **Sampling Time** 2:05 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.326	mg/Kg	0.264	10/26/2012	CRW	EPA 335.4	
%moisture	6.5	Percent		10/30/2012	CRW	%moisture	

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	121017007
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1210692
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	121017007-021	**Sampling Date**	10/12/2012	**Date/Time Received**	10/16/2012 1:16 PM
Client Sample ID	1210692-022D / SWMU 1-13 (1.5-2)	**Sampling Time**	2:25 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.271	10/26/2012	CRW	EPA 335.4	
%moisture	8.3	Percent		10/30/2012	CRW	%moisture	

Sample Number	121017007-022	**Sampling Date**	10/12/2012	**Date/Time Received**	10/16/2012 1:16 PM
Client Sample ID	1210692-023D / SWMU 1-13 (2-4)	**Sampling Time**	2:35 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.279	10/26/2012	CRW	EPA 335.4	
%moisture	11.5	Percent		10/30/2012	CRW	%moisture	

Sample Number	121017007-023	**Sampling Date**	10/12/2012	**Date/Time Received**	10/16/2012 1:16 PM
Client Sample ID	1210692-024D / SWMU 1-13 (4-6)	**Sampling Time**	3:00 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.284	10/26/2012	CRW	EPA 335.4	
%moisture	13.7	Percent		10/30/2012	CRW	%moisture	

Sample Number	121017007-024	**Sampling Date**	10/12/2012	**Date/Time Received**	10/16/2012 1:16 PM
Client Sample ID	1210692-025D / SWMU 1-13 (4-6) DUP	**Sampling Time**	3:00 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.292	10/26/2012	CRW	EPA 335.4	
%moisture	14.9	Percent		10/30/2012	CRW	%moisture	

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

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

Batch #: 121017007
Project Name: 1210692

Analytical Results Report

Sample Number 121017007-025 **Sampling Date** 10/11/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-026F / SWMU 1-37 GW **Sampling Time** 10:00 AM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0309	mg/L	0.01	10/24/2012	CRW	EPA 335.4	

Sample Number 121017007-026 **Sampling Date** 10/11/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-027F / EB101112 **Sampling Time** 3:45 PM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	10/24/2012	CRW	EPA 335.4	

Sample Number 121017007-027 **Sampling Date** 10/12/2012 **Date/Time Received** 10/16/2012 1:16 PM
Client Sample ID 1210692-028F / EB101212 **Sampling Time** 4:20 PM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	10/26/2012	CRW	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R6311**	RunNo: **6311**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181710** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R6311**	RunNo: **6311**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181711** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
'ium	0.51	0.0020	0.5000	0	103	85	115			
...nium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	98.9	85	115			
Cobalt	0.49	0.0060	0.5000	0	97.1	85	115			
Manganese	0.49	0.0020	0.5000	0	98.1	85	115			
Nickel	0.48	0.010	0.5000	0	95.9	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Vanadium	0.52	0.050	0.5000	0	104	85	115			
Zinc	0.49	0.010	0.5000	0	98.4	85	115			

Sample ID **1210572-018AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R6311**	RunNo: **6311**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181754** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	101	70	130			
Chromium	0.47	0.0060	0.5000	0	95.0	70	130			
Nickel	0.45	0.010	0.5000	0.001290	90.7	70	130			
Zinc	0.46	0.010	0.5000	0	92.7	70	130			

Sample ID **1210572-018AMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R6311**	RunNo: **6311**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181755** Units: **mg/L**

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

lifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	1210572-018AMSD	SampType:	MSD		TestCode:	EPA Method 200.7: Metals				
Client ID:	BatchQC	Batch ID:	R6311		RunNo:	6311				
Prep Date:		Analysis Date:	10/17/2012		SeqNo:	181755	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	99.7	70	130	1.02	20	
Chromium	0.47	0.0060	0.5000	0	93.9	70	130	1.11	20	
Nickel	0.46	0.010	0.5000	0.001290	92.0	70	130	1.48	20	
Zinc	0.46	0.010	0.5000	0	91.7	70	130	1.09	20	

Sample ID	MB	SampType:	MBLK		TestCode:	EPA Method 200.7: Metals				
Client ID:	PBW	Batch ID:	R6342		RunNo:	6342				
Prep Date:		Analysis Date:	10/18/2012		SeqNo:	182483	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								

Sample ID	LCS	SampType:	LCS		TestCode:	EPA Method 200.7: Metals				
Client ID:	LCSW	Batch ID:	R6342		RunNo:	6342				
Prep Date:		Analysis Date:	10/18/2012		SeqNo:	182484	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.49	0.020	0.5000	0	98.1	85	115			

Sample ID	1210513-001AMS	SampType:	MS		TestCode:	EPA Method 200.7: Metals				
Client ID:	BatchQC	Batch ID:	R6342		RunNo:	6342				
Prep Date:		Analysis Date:	10/18/2012		SeqNo:	182578	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.50	0.020	0.5000	0	100	70	130			

Sample ID	1210513-001AMSD	SampType:	MSD		TestCode:	EPA Method 200.7: Metals				
Client ID:	BatchQC	Batch ID:	R6342		RunNo:	6342				
Prep Date:		Analysis Date:	10/18/2012		SeqNo:	182579	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.49	0.020	0.5000	0	98.8	70	130	1.41	20	

Sample ID	MB-4388	SampType:	MBLK		TestCode:	EPA Method 200.7: Metals				
Client ID:	PBW	Batch ID:	4388		RunNo:	6377				
Prep Date:	10/18/2012	Analysis Date:	10/19/2012		SeqNo:	183397	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

nt: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **MB-4388**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **4388**	RunNo: **6377**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **183397** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID **LCS-4388**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **4388**	RunNo: **6377**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **183398** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	95.9	85	115			
Beryllium	0.52	0.0020	0.5000	0	104	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	97.1	85	115			
't	0.47	0.0060	0.5000	0	93.3	85	115			
	0.47	0.020	0.5000	0	94.4	85	115			
Manganese	0.47	0.0020	0.5000	0	93.4	85	115			
Nickel	0.46	0.010	0.5000	0	92.2	85	115			
Silver	0.10	0.0050	0.1000	0	103	85	115			
Vanadium	0.51	0.050	0.5000	0	102	85	115			
Zinc	0.48	0.010	0.5000	0	95.3	85	115			

Sample ID **1210692-027DMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **EB101112**	Batch ID: **4388**	RunNo: **6377**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **183451** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.45	0.0020	0.5000	0.001070	90.6	70	130			
Beryllium	0.49	0.0020	0.5000	0	97.3	70	130			
Cadmium	0.48	0.0020	0.5000	0	95.6	70	130			
Chromium	0.46	0.0060	0.5000	0	91.5	70	130			
Cobalt	0.43	0.0060	0.5000	0	86.4	70	130			
Manganese	0.45	0.0020	0.5000	0.001780	89.2	70	130			
Nickel	0.42	0.010	0.5000	0.001690	83.9	70	130			
Silver	0.095	0.0050	0.1000	0	94.9	70	130			
Vanadium	0.49	0.050	0.5000	0	98.2	70	130			
Zinc	0.42	0.010	0.5000	0	83.3	70	130			

'ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210692-027DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**

Client ID: **EB101112** Batch ID: **4388** RunNo: **6377**

Prep Date: **10/18/2012** Analysis Date: **10/19/2012** SeqNo: **183452** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.46	0.0020	0.5000	0.001070	91.1	70	130	0.538	20	
Beryllium	0.49	0.0020	0.5000	0	97.1	70	130	0.126	20	
Cadmium	0.48	0.0020	0.5000	0	95.8	70	130	0.190	20	
Chromium	0.46	0.0060	0.5000	0	91.8	70	130	0.347	20	
Cobalt	0.43	0.0060	0.5000	0	86.8	70	130	0.490	20	
Manganese	0.45	0.0020	0.5000	0.001780	89.7	70	130	0.617	20	
Nickel	0.42	0.010	0.5000	0.001690	84.4	70	130	0.521	20	
Silver	0.098	0.0050	0.1000	0	98.2	70	130	3.36	20	
Vanadium	0.49	0.050	0.5000	0	98.2	70	130	0.0244	20	
Zinc	0.42	0.010	0.5000	0	83.9	70	130	0.765	20	

Sample ID **1210692-027DMS** SampType: **MS** TestCode: **EPA Method 200.7: Metals**

Client ID: **EB101112** Batch ID: **4388** RunNo: **6431**

Prep Date: **10/18/2012** Analysis Date: **10/23/2012** SeqNo: **184811** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.60	0.020	0.5000	0.1311	92.9	70	130			

Sample ID **1210692-027DMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**

Client ID: **EB101112** Batch ID: **4388** RunNo: **6431**

Prep Date: **10/18/2012** Analysis Date: **10/23/2012** SeqNo: **184812** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.60	0.020	0.5000	0.1311	94.6	70	130	1.40	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	MB-4388	SampType:	MBLK	TestCode:	EPA 200.8: Metals					
Client ID:	PBW	Batch ID:	4388	RunNo:	6368					
Prep Date:	10/18/2012	Analysis Date:	10/19/2012	SeqNo:	183111	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0025								
Arsenic	ND	0.0025								
Lead	ND	0.0025								
Selenium	ND	0.0025								

Sample ID	1209C98-001AMS	SampType:	MS	TestCode:	EPA 200.8: Metals					
Client ID:	BatchQC	Batch ID:	R6483	RunNo:	6483					
Prep Date:		Analysis Date:	10/25/2012	SeqNo:	186650	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.031	0.0010	0.02500	0.005774	102	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Metals					
Client ID:	LCSW	Batch ID:	R6483	RunNo:	6483					
Prep Date:		Analysis Date:	10/25/2012	SeqNo:	186664	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
ony	0.026	0.0010	0.02500	0	103	85	115			
ic	0.026	0.0010	0.02500	0	104	85	115			
Lead	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Metals					
Client ID:	LCSW	Batch ID:	R6483	RunNo:	6483					
Prep Date:		Analysis Date:	10/25/2012	SeqNo:	186665	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.026	0.0010	0.02500	0	104	85	115			
Arsenic	0.026	0.0010	0.02500	0	105	85	115			
Lead	0.027	0.0010	0.02500	0	106	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Metals					
Client ID:	PBW	Batch ID:	R6483	RunNo:	6483					
Prep Date:		Analysis Date:	10/25/2012	SeqNo:	186667	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1210692**

Hall Environmental Analysis Laboratory, Inc.

20-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **186668** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **1210516-002BMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187056** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	102	70	130			
Lead	0.029	0.0010	0.02500	0.002703	104	70	130			
Selenium	0.026	0.0010	0.02500	0	102	70	130			

Sample ID **1210544-001CMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187059** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	98.2	70	130			
Arsenic	0.027	0.0010	0.02500	0.001693	101	70	130			
Selenium	0.026	0.0010	0.02500	0.001046	100	70	130			

Sample ID **1210724-001AMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187071** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.048	0.0010	0.02500	0.02319	99.5	70	130			

Sample ID **1210724-010AMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187081** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0010	0.02500	0.004033	101	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187100** Units: **mg/L**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

nt: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**							
Client ID: **LCSW**	Batch ID: **R6483**	RunNo: **6483**							
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187100**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.024	0.0010	0.02500	0	96.9	85	115			
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.026	0.0010	0.02500	0	104	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**							
Client ID: **LCSW**	Batch ID: **R6483**	RunNo: **6483**							
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187101**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.024	0.0010	0.02500	0	96.2	85	115			
Arsenic	0.025	0.0010	0.02500	0	99.5	85	115			
Lead	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**							
Client ID: **PBW**	Batch ID: **R6483**	RunNo: **6483**							
) Date:	Analysis Date: **10/25/2012**	SeqNo: **187102**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**							
Client ID: **PBW**	Batch ID: **R6483**	RunNo: **6483**							
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187103**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB-4738**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**							
Client ID: **PBW**	Batch ID: **4738**	RunNo: **6848**							
Prep Date: **11/8/2012**	Analysis Date: **11/12/2012**	SeqNo: **198392**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0025								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4503**	SampType: **MBLK**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **4503**	RunNo: **6470**
Prep Date: **10/24/2012**	Analysis Date: **10/24/2012**	SeqNo: **186274** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-4503**	SampType: **LCS**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **4503**	RunNo: **6470**
Prep Date: **10/24/2012**	Analysis Date: **10/24/2012**	SeqNo: **186276** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.2	80	120			

Sample ID **1210675-003BMS**	SampType: **ms**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **4503**	RunNo: **6470**
Prep Date: **10/24/2012**	Analysis Date: **10/24/2012**	SeqNo: **186299** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0042	0.00020	0.005000	0	83.0	75	125			

Sample ID **1210675-003BMSD**	SampType: **msd**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **4503**	RunNo: **6470**
Prep Date: **10/24/2012**	Analysis Date: **10/24/2012**	SeqNo: **186300** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0040	0.00020	0.005000	0	80.1	75	125	3.62	20	

Qualifiers:

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- E Value above quantitation range
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- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6252**	RunNo: **6252**
Prep Date:	Analysis Date: **10/15/2012**	SeqNo: **180156** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6252**	RunNo: **6252**
Prep Date:	Analysis Date: **10/15/2012**	SeqNo: **180157** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.45	0.10	0.5000	0	90.5	90	110			
Chloride	4.7	0.50	5.000	0	94.6	90	110			
Sulfate	9.8	0.50	10.00	0	97.6	90	110			

Sample ID **1210692-027CMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **EB101112**	Batch ID: **R6252**	RunNo: **6252**
Prep Date:	Analysis Date: **10/15/2012**	SeqNo: **180161** Units: **mg/L**

'yte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
.de	0.45	0.10	0.5000	0	89.6	76.6	110			
Chloride	4.7	0.50	5.000	0.1934	90.6	87.8	111			
Sulfate	9.6	0.50	10.00	0	96.4	84.6	122			

Sample ID **1210692-027CMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **EB101112**	Batch ID: **R6252**	RunNo: **6252**
Prep Date:	Analysis Date: **10/15/2012**	SeqNo: **180162** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.46	0.10	0.5000	0	91.6	76.6	110	2.19	20	
Chloride	4.7	0.50	5.000	0.1934	90.5	87.8	111	0.131	20	
Sulfate	9.6	0.50	10.00	0	95.7	84.6	122	0.694	20	

Sample ID **1210694-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6252**	RunNo: **6252**
Prep Date:	Analysis Date: **10/15/2012**	SeqNo: **180170** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.2	0.10	0.5000	0.7877	89.9	76.6	110			

'fiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	**1210694-001AMSD**	SampType:	**MSD**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**BatchQC**	Batch ID:	**R6252**		RunNo:	**6252**				
Prep Date:		Analysis Date:	**10/15/2012**		SeqNo:	**180171**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.2	0.10	0.5000	0.7877	92.4	76.6	110	0.997	20	

Sample ID	**MB**	SampType:	**MBLK**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBW**	Batch ID:	**R6330**		RunNo:	**6330**				
Prep Date:		Analysis Date:	**10/17/2012**		SeqNo:	**182236**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID	**LCS**	SampType:	**LCS**		TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSW**	Batch ID:	**R6330**		RunNo:	**6330**				
Prep Date:		Analysis Date:	**10/17/2012**		SeqNo:	**182237**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	96.6	90	110			
Chloride	4.8	0.50	5.000	0	97.0	90	110			
Sulfate	9.6	0.50	10.00	0	95.9	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

nt: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID	MB-4297	SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	PBS	Batch ID:	4297		RunNo:	6226				
Prep Date:	10/15/2012	Analysis Date:	10/15/2012		SeqNo:	179526	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.1		10.00		90.9	77.6	140			

Sample ID	LCS-4297	SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	4297		RunNo:	6226				
Prep Date:	10/15/2012	Analysis Date:	10/15/2012		SeqNo:	179527	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	10	50.00	0	97.3	52.6	130			
Surr: DNOP	4.5		5.000		89.5	77.6	140			

Sample ID	MB-4305	SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	PBS	Batch ID:	4305		RunNo:	6260				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012		SeqNo:	180406	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
l Range Organics (DRO)	ND	10								
Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.0		10.00		89.9	77.6	140			

Sample ID	LCS-4305	SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	4305		RunNo:	6260				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012		SeqNo:	180407	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	10	50.00	0	71.6	52.6	130			
Surr: DNOP	4.0		5.000		80.0	77.6	140			

Sample ID	1210692-001CMS	SampType:	MS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	SWMU 1-20 (0-0.5')	Batch ID:	4305		RunNo:	6264				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012		SeqNo:	181188	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	30	9.6	48.17	0	62.7	57.2	146			
Surr: DNOP	3.7		4.817		77.1	77.6	140			S

Sample ID	1210692-001CMSD	SampType:	MSD		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	SWMU 1-20 (0-0.5')	Batch ID:	4305		RunNo:	6264				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012		SeqNo:	181190	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

ifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210692-001CMSD** SampType: **MSD** TestCode: **EPA Method 8015B: Diesel Range Organics**

Client ID: **SWMU 1-20 (0-0.5')** Batch ID: **4305** RunNo: **6264**

Prep Date: **10/15/2012** Analysis Date: **10/16/2012** SeqNo: **181190** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	29	9.8	48.92	0	59.5	57.2	146	3.70	24.5	
Surr: DNOP	4.0		4.892		82.2	77.6	140	0	0	

Sample ID **1210692-022CMS** SampType: **MS** TestCode: **EPA Method 8015B: Diesel Range Organics**

Client ID: **SWMU 1-13 (1.5-2')** Batch ID: **4297** RunNo: **6264**

Prep Date: **10/15/2012** Analysis Date: **10/16/2012** SeqNo: **181197** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	9.8	48.83	15.64	42.9	57.2	146			S
Surr: DNOP	3.9		4.883		80.4	77.6	140			

Sample ID **1210692-022CMSD** SampType: **MSD** TestCode: **EPA Method 8015B: Diesel Range Organics**

Client ID: **SWMU 1-13 (1.5-2')** Batch ID: **4297** RunNo: **6264**

Prep Date: **10/15/2012** Analysis Date: **10/16/2012** SeqNo: **181199** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.8	48.83	15.64	58.1	57.2	146	18.4	24.5	
Surr: DNOP	4.0		4.883		82.0	77.6	140	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

ɔnt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4332**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **4332**	RunNo: **6264**
Prep Date: **10/16/2012**	Analysis Date: **10/16/2012**	SeqNo: **181203** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		106	79.5	166			

Sample ID **LCS-4332**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **4332**	RunNo: **6264**
Prep Date: **10/16/2012**	Analysis Date: **10/16/2012**	SeqNo: **181204** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	3.7	1.0	5.000	0	74.3	74	157			
Surr: DNOP	0.47		0.5000		93.6	79.5	166			

Sample ID **LCSD-4332**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **4332**	RunNo: **6264**
Prep Date: **10/16/2012**	Analysis Date: **10/16/2012**	SeqNo: **181205** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
ɔl Range Organics (DRO)	3.9	1.0	5.000	0	78.8	74	157	8.99	23	
ɹr: DNOP	0.49		0.5000		97.2	79.5	166	0	0	

lifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4362**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **4362**	RunNo: **6387**
Prep Date: **10/17/2012**	Analysis Date: **10/21/2012**	SeqNo: **183666** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		90.5	84	116			

Sample ID **LCS-4362**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **4362**	RunNo: **6387**
Prep Date: **10/17/2012**	Analysis Date: **10/21/2012**	SeqNo: **183667** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.6	74	117			
Surr: BFB	970		1000		97.3	84	116			

Sample ID **1210803-006AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **4362**	RunNo: **6387**
Prep Date: **10/17/2012**	Analysis Date: **10/21/2012**	SeqNo: **183670** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	23	23.26	0	136	70	130			S
Surr: BFB	4200		4651		90.1	84	116			

Sample ID **1210803-006AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **4362**	RunNo: **6387**
Prep Date: **10/17/2012**	Analysis Date: **10/21/2012**	SeqNo: **183671** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	25	24.56	0	133	70	130	2.92	22.1	S
Surr: BFB	4400		4912		90.0	84	116	0	0	

Sample ID **MB-4403**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **4403**	RunNo: **6387**
Prep Date: **10/18/2012**	Analysis Date: **10/21/2012**	SeqNo: **183713** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	910		1000		91.0	84	116			

Sample ID **LCS-4403**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **4403**	RunNo: **6387**
Prep Date: **10/18/2012**	Analysis Date: **10/21/2012**	SeqNo: **183714** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	940		1000		93.8	84	116			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **b2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184052** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		87.9	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.2	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		90.8	70	130			
Surr: Toluene-d8	0.47		0.5000		94.3	70	130			

Sample ID **100ng lcsc**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184056** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		90.9	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.6	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		90.1	70	130			
Surr: Toluene-d8	0.46		0.5000		91.1	70	130			

Sample ID **1210582-003bms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R6394**	RunNo: **6394**
) Date:	Analysis Date: **10/19/2012**	SeqNo: **184057** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	2.7		2.820		95.2	70	130			
Surr: 4-Bromofluorobenzene	2.1		2.820		73.3	70	130			
Surr: Dibromofluoromethane	2.7		2.820		95.5	70	130			
Surr: Toluene-d8	2.7		2.820		95.6	70	130			

Sample ID **1210582-003bmsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184058** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	2.8		2.820		98.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	2.0		2.820		69.9	70	130	0	0	S
Surr: Dibromofluoromethane	2.7		2.820		95.4	70	130	0	0	
Surr: Toluene-d8	2.6		2.820		93.2	70	130	0	0	

Sample ID **mb-4362**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **4362**	RunNo: **6485**
Prep Date: **10/17/2012**	Analysis Date: **10/24/2012**	SeqNo: **186696** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.3	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.1	70	130			

ifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **mb-4362**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **4362**	RunNo: **6485**
Prep Date: **10/17/2012**	Analysis Date: **10/24/2012**	SeqNo: **186696** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.46		0.5000		92.5	70	130			
Surr: Toluene-d8	0.49		0.5000		98.5	70	130			

Sample ID **lcs-4362**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **4362**	RunNo: **6485**
Prep Date: **10/17/2012**	Analysis Date: **10/24/2012**	SeqNo: **186792** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.4	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.7	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.1	70	130			
Surr: Toluene-d8	0.47		0.5000		94.6	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4301**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4301**	RunNo: **6259**
Prep Date: **10/15/2012**	Analysis Date: **10/15/2012**	SeqNo: **180381** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
Naphthalene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
anone	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4301** SampType: **MBLK** TestCode: **Method 8260B/5035LOW: VOLATILES**

Client ID: **PBS** Batch ID: **4301** RunNo: **6259**

Prep Date: **10/15/2012** Analysis Date: **10/15/2012** SeqNo: **180381** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	43.6		50.00		87.1	70	130			
Surr: 4-Bromofluorobenzene	46.6		50.00		93.1	70	130			
Surr: Dibromofluoromethane	49.1		50.00		98.2	70	130			
Surr: Toluene-d8	43.1		50.00		86.3	70	130			

Sample ID **lcs-4301** SampType: **LCS** TestCode: **Method 8260B/5035LOW: VOLATILES**

Client ID: **LCSS** Batch ID: **4301** RunNo: **6259**

Prep Date: **10/15/2012** Analysis Date: **10/15/2012** SeqNo: **180383** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	8.88	1.00	10.00	0	88.8	60	140			
Toluene	8.84	1.00	10.00	0	88.4	60	140			
Chlorobenzene	9.69	1.00	10.00	0	96.9	60	140			
1,1-Dichloroethene	11.2	1.00	10.00	0	112	60	140			
Trichloroethene (TCE)	9.94	1.00	10.00	0	99.4	60	140			
Surr: 1,2-Dichloroethane-d4	44.2		50.00		88.3	70	130			
Surr: 4-Bromofluorobenzene	47.2		50.00		94.3	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	lcs-4301	SampType:	LCS		TestCode:	Method 8260B/5035LOW: VOLATILES				
Client ID:	LCSS	Batch ID:	4301		RunNo:	6259				
Prep Date:	10/15/2012	Analysis Date:	10/15/2012		SeqNo:	180383	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	51.4		50.00		103	70	130			
Surr: Toluene-d8	44.0		50.00		87.9	70	130			

Sample ID	mb-4333	SampType:	MBLK		TestCode:	Method 8260B/5035LOW: VOLATILES				
Client ID:	PBS	Batch ID:	4333		RunNo:	6282				
Prep Date:	10/16/2012	Analysis Date:	10/16/2012		SeqNo:	181101	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
thalene	ND	0.00200								
ethylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
2-Butanone	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								

lifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4333**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**	
Client ID: **PBS**	Batch ID: **4333**	RunNo: **6282**	
Prep Date: **10/16/2012**	Analysis Date: **10/16/2012**	SeqNo: **181101**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	45.3		50.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	46.7		50.00		93.4	70	130			
Surr: Dibromofluoromethane	39.5		50.00		79.1	70	130			
Surr: Toluene-d8	50.6		50.00		101	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4333**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4333**	RunNo: **6282**
Prep Date: **10/16/2012**	Analysis Date: **10/16/2012**	SeqNo: **181103** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	13.0	1.00	12.50	0	104	60	140			
Toluene	10.5	1.00	12.50	0	83.7	60	140			
Chlorobenzene	11.5	1.00	12.50	0	92.3	60	140			
1,1-Dichloroethene	14.0	1.00	12.50	0	112	60	140			
Trichloroethene (TCE)	18.1	1.00	12.50	0	145	60	140			S
Surr: 1,2-Dichloroethane-d4	44.4		50.00		88.8	70	130			
Surr: 4-Bromofluorobenzene	47.2		50.00		94.4	70	130			
Surr: Dibromofluoromethane	39.3		50.00		78.6	70	130			
Surr: Toluene-d8	43.1		50.00		86.1	70	130			

'fiers:

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

QC SUMMARY REPORT

WO#: **1210692**

Hall Environmental Analysis Laboratory, Inc.

20-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R6255**	RunNo: **6255**	
Prep Date:	Analysis Date: **10/15/2012**	SeqNo: **180303**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6255**	RunNo: **6255**
Prep Date:	Analysis Date: **10/15/2012**	SeqNo: **180303** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.1	70	130			
Surr: Toluene-d8	9.9		10.00		99.3	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6255**	RunNo: **6255**
Prep Date:	Analysis Date: **10/15/2012**	SeqNo: **180305** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	109	70	130			
Toluene	21	1.0	20.00	0	105	80	120			
Chlorobenzene	21	1.0	20.00	0	107	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	92.3	73.7	122			
Trichloroethene (TCE)	19	1.0	20.00	0	92.6	70	130			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.2	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.7	70	130			

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1210692**

Hall Environmental Analysis Laboratory, Inc.

20-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6255**	RunNo: **6255**
Prep Date:	Analysis Date: **10/15/2012**	SeqNo: **180305** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.0		10.00		90.3	70	130			
Surr: Toluene-d8	9.4		10.00		93.9	70	130			

Sample ID **5ml rb-b**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6340**	RunNo: **6340**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **182455** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml rb-b**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6340**	RunNo: **6340**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **182455** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.5		10.00		84.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	8.8		10.00		87.8	70	130			
Surr: Toluene-d8	9.7		10.00		97.3	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

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

Client ID: **LCSW** Batch ID: **R6340** RunNo: **6340**

Prep Date: Analysis Date: **10/17/2012** SeqNo: **182457** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	115	70	130			
Toluene	21	1.0	20.00	0	105	80	120			
Chlorobenzene	21	1.0	20.00	0	105	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	107	73.7	122			
Trichloroethene (TCE)	19	1.0	20.00	0	94.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.6	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.3	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.7	70	130			
Surr: Toluene-d8	9.6		10.00		96.4	70	130			

Sample ID **1210660-001ams** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R6340** RunNo: **6340**

Prep Date: Analysis Date: **10/17/2012** SeqNo: **182459** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	130	5.0	100.0	19.53	115	66.8	128			
Toluene	120	5.0	100.0	18.25	100	70	130			
Chlorobenzene	99	5.0	100.0	0	98.8	70	130			
1,1-Dichloroethene	110	5.0	100.0	0	109	70	130			
Trichloroethene (TCE)	94	5.0	100.0	0	94.0	70	130			
Surr: 1,2-Dichloroethane-d4	45		50.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	47		50.00		94.9	70	130			
Surr: Dibromofluoromethane	47		50.00		94.8	70	130			
Surr: Toluene-d8	47		50.00		94.4	70	130			

Sample ID **1210660-001amsd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R6340** RunNo: **6340**

Prep Date: Analysis Date: **10/17/2012** SeqNo: **182460** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	130	5.0	100.0	19.53	107	66.8	128	6.17	16.7	
Toluene	110	5.0	100.0	18.25	93.5	70	130	5.64	18.7	
Chlorobenzene	98	5.0	100.0	0	98.5	70	130	0.270	19.5	
1,1-Dichloroethene	100	5.0	100.0	0	104	70	130	4.23	16.7	
Trichloroethene (TCE)	92	5.0	100.0	0	91.9	70	130	2.26	17.5	
Surr: 1,2-Dichloroethane-d4	46		50.00		92.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	48		50.00		96.8	70	130	0	0	
Surr: Dibromofluoromethane	47		50.00		94.3	70	130	0	0	
Surr: Toluene-d8	47		50.00		94.8	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4304**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4304**	RunNo: **6287**
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **181172** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1210692**

Hall Environmental Analysis Laboratory, Inc.

20-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **mb-4304** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS** Batch ID: **4304** RunNo: **6287**
Prep Date: **10/15/2012** Analysis Date: **10/16/2012** SeqNo: **181172** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.3		3.330		99.2	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.670		87.3	20	131			
Surr: 2-Fluorophenol	2.9		3.330		86.6	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		77.7	25.1	149			
Surr: Nitrobenzene-d5	1.4		1.670		86.0	25.6	137			
Surr: Phenol-d5	2.8		3.330		85.1	20.3	132			

Sample ID **lcs-4304** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS** Batch ID: **4304** RunNo: **6287**
Prep Date: **10/15/2012** Analysis Date: **10/16/2012** SeqNo: **181173** Units: **mg/Kg**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4304**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4304**	RunNo: **6287**
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **181173** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.5	0.20	1.670	0	87.0	49.7	98.1			
4-Chloro-3-methylphenol	2.8	0.50	3.330	0	83.9	43.8	89.1			
2-Chlorophenol	2.3	0.20	3.330	0	70.1	41.1	96.9			
1,4-Dichlorobenzene	1.2	0.20	1.670	0	70.8	41	97.4			
2,4-Dinitrotoluene	1.8	0.50	1.670	0	107	44.4	104			S
N-Nitrosodi-n-propylamine	1.4	0.20	1.670	0	84.8	39.1	86.9			
4-Nitrophenol	2.9	0.25	3.330	0	87.7	44.2	107			
Pentachlorophenol	2.1	0.40	3.330	0	62.0	36.2	80			
Phenol	2.5	0.20	3.330	0	76.4	42.7	92.7			
Pyrene	1.2	0.20	1.670	0	71.1	34.7	98.8			
1,2,4-Trichlorobenzene	1.3	0.20	1.670	0	79.0	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.3		3.330		98.8	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.670		89.8	20	131			
Surr: 2-Fluorophenol	2.5		3.330		75.9	11.9	130			
Surr: 4-Terphenyl-d14	1.2		1.670		74.2	25.1	149			
Surr: Nitrobenzene-d5	1.5		1.670		90.6	25.6	137			
Surr: Phenol-d5	2.8		3.330		84.9	20.3	132			

Sample ID **mb-4337**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4337**	RunNo: **6376**
Prep Date: **10/16/2012**	Analysis Date: **10/21/2012**	SeqNo: **183352** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								

ifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4337**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4337**	RunNo: **6376**
Prep Date: **10/16/2012**	Analysis Date: **10/21/2012**	SeqNo: **183352** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4337** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **PBS** Batch ID: **4337** RunNo: **6376**

Prep Date: **10/16/2012** Analysis Date: **10/21/2012** SeqNo: **183352** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.2		3.330		95.0	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.670		88.8	20	131			
Surr: 2-Fluorophenol	2.5		3.330		75.7	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		76.8	25.1	149			
Surr: Nitrobenzene-d5	1.4		1.670		84.4	25.6	137			
Surr: Phenol-d5	2.6		3.330		78.4	20.3	132			

Sample ID **lcs-4337** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS** Batch ID: **4337** RunNo: **6376**

Prep Date: **10/16/2012** Analysis Date: **10/21/2012** SeqNo: **183353** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	72.3	49.7	98.1			
4-Chloro-3-methylphenol	2.5	0.50	3.330	0	75.5	43.8	89.1			
2-Chlorophenol	2.3	0.20	3.330	0	68.0	41.1	96.9			
1,4-Dichlorobenzene	1.1	0.20	1.670	0	66.6	41	97.4			
2,4-Dinitrotoluene	1.3	0.50	1.670	0	76.5	44.4	104			
N-Nitrosodi-n-propylamine	1.2	0.20	1.670	0	74.5	39.1	86.9			
4-Nitrophenol	2.1	0.25	3.330	0	63.7	44.2	107			
Pentachlorophenol	2.1	0.40	3.330	0	62.9	36.2	80			
Phenol	2.2	0.20	3.330	0	66.8	42.7	92.7			
Pyrene	1.2	0.20	1.670	0	74.5	34.7	98.8			
1,2,4-Trichlorobenzene	1.3	0.20	1.670	0	78.7	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.4		3.330		102	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.670		89.9	20	131			
Surr: 2-Fluorophenol	2.4		3.330		71.3	11.9	130			
Surr: 4-Terphenyl-d14	1.4		1.670		85.9	25.1	149			
Surr: Nitrobenzene-d5	1.6		1.670		93.1	25.6	137			
Surr: Phenol-d5	2.9		3.330		86.8	20.3	132			

ifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1210692**

Hall Environmental Analysis Laboratory, Inc.

20-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **1210653-001CMS** SampType: **MS** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **BatchQC** Batch ID: **4304** RunNo: **6376**
Prep Date: **10/15/2012** Analysis Date: **10/21/2012** SeqNo: **183387** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.40	1.664	0	74.7	25.6	142			
4-Chloro-3-methylphenol	2.6	1.0	3.318	0	78.7	63.7	100			
2-Chlorophenol	2.4	0.40	3.318	0	73.0	22.2	126			
1,4-Dichlorobenzene	1.1	0.40	1.664	0	69.0	12.4	115			
2,4-Dinitrotoluene	1.3	1.0	1.664	0	78.8	14.9	142			
N-Nitrosodi-n-propylamine	1.4	0.40	1.664	0	81.4	13.9	136			
4-Nitrophenol	2.4	0.50	3.318	0	73.6	36.7	130			
Pentachlorophenol	2.2	0.80	3.318	0	66.4	15.8	113			
Phenol	2.5	0.40	3.318	0	73.9	25.1	124			
Pyrene	1.5	0.40	1.664	0	88.1	35.8	124			
1,2,4-Trichlorobenzene	1.4	0.40	1.664	0	82.7	30	113			
Surr: 2,4,6-Tribromophenol	3.3		3.318		101	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.664		94.0	20	131			
Surr: 2-Fluorophenol	2.9		3.318		88.7	11.9	130			
Surr: 4-Terphenyl-d14	1.5		1.664		91.7	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.664		103	25.6	137			
Surr: Phenol-d5	3.2		3.318		97.8	20.3	132			

Sample ID **1210692-010CMS** SampType: **MS** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **SWMU 1-27 (1.5-2')** Batch ID: **4337** RunNo: **6376**
Prep Date: **10/16/2012** Analysis Date: **10/21/2012** SeqNo: **183388** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.680	0	74.0	25.6	142			
4-Chloro-3-methylphenol	2.5	0.50	3.350	0	75.2	63.7	100			
2-Chlorophenol	2.4	0.20	3.350	0	70.8	22.2	126			
1,4-Dichlorobenzene	1.2	0.20	1.680	0	71.7	12.4	115			
2,4-Dinitrotoluene	1.3	0.50	1.680	0	79.4	14.9	142			
N-Nitrosodi-n-propylamine	1.3	0.20	1.680	0	79.8	13.9	136			
4-Nitrophenol	2.4	0.25	3.350	0.08908	69.3	36.7	130			
Pentachlorophenol	2.2	0.40	3.350	0	67.0	15.8	113			
Phenol	2.3	0.20	3.350	0	69.6	25.1	124			
Pyrene	1.2	0.20	1.680	0	74.2	35.8	124			
1,2,4-Trichlorobenzene	1.4	0.20	1.680	0	83.9	30	113			
Surr: 2,4,6-Tribromophenol	3.3		3.350		97.8	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.680		94.5	20	131			
Surr: 2-Fluorophenol	2.7		3.350		79.9	11.9	130			
Surr: 4-Terphenyl-d14	1.4		1.680		83.3	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.680		104	25.6	137			
Surr: Phenol-d5	3.1		3.350		93.0	20.3	132			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210653-001CMSD** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **BatchQC** Batch ID: **4304** RunNo: **6376**

Prep Date: **10/15/2012** Analysis Date: **10/21/2012** SeqNo: **183389** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.3	0.40	1.672	0	75.2	25.6	142	1.09	22	
4-Chloro-3-methylphenol	2.4	1.0	3.334	0	73.0	63.7	100	7.05	27.3	
2-Chlorophenol	2.3	0.40	3.334	0	67.8	22.2	126	6.86	26.3	
1,4-Dichlorobenzene	1.0	0.40	1.672	0	61.9	12.4	115	10.4	27.4	
2,4-Dinitrotoluene	1.3	1.0	1.672	0	77.2	14.9	142	1.50	27.4	
N-Nitrosodi-n-propylamine	1.3	0.40	1.672	0	75.4	13.9	136	7.14	22.6	
4-Nitrophenol	2.4	0.50	3.334	0	73.4	36.7	130	0.281	20	
Pentachlorophenol	2.2	0.80	3.334	0	66.2	15.8	113	0.258	27.1	
Phenol	2.1	0.40	3.334	0	62.9	25.1	124	15.6	32.2	
Pyrene	1.3	0.40	1.672	0	79.2	35.8	124	10.1	29.5	
1,2,4-Trichlorobenzene	1.3	0.40	1.672	0	80.6	30	113	2.14	27.8	
Surr: 2,4,6-Tribromophenol	3.1		3.334		92.3	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.5		1.672		87.3	20	131	0	0	
Surr: 2-Fluorophenol	2.8		3.334		83.7	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.4		1.672		84.8	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.5		1.672		91.5	25.6	137	0	0	
Surr: Phenol-d5	3.0		3.334		88.5	20.3	132	0	0	

Sample ID **1210692-010CMSD** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **SWMU 1-27 (1.5-2')** Batch ID: **4337** RunNo: **6376**

Prep Date: **10/16/2012** Analysis Date: **10/21/2012** SeqNo: **183390** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.3	0.20	1.671	0	76.8	25.6	142	3.14	22	
4-Chloro-3-methylphenol	2.7	0.50	3.332	0	79.6	63.7	100	5.18	27.3	
2-Chlorophenol	2.3	0.20	3.332	0	70.1	22.2	126	1.57	26.3	
1,4-Dichlorobenzene	1.1	0.20	1.671	0	68.7	12.4	115	4.83	27.4	
2,4-Dinitrotoluene	1.3	0.50	1.671	0	80.6	14.9	142	0.963	27.4	
N-Nitrosodi-n-propylamine	1.3	0.20	1.671	0	80.6	13.9	136	0.435	22.6	
4-Nitrophenol	2.5	0.25	3.332	0.08908	70.9	36.7	130	1.76	20	
Pentachlorophenol	2.1	0.40	3.332	0	63.8	15.8	113	5.36	27.1	
Phenol	2.3	0.20	3.332	0	68.6	25.1	124	1.93	32.2	
Pyrene	1.2	0.20	1.671	0	71.2	35.8	124	4.60	29.5	
1,2,4-Trichlorobenzene	1.4	0.20	1.671	0	83.7	30	113	0.749	27.8	
Surr: 2,4,6-Tribromophenol	3.2		3.332		97.1	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.6		1.671		98.0	20	131	0	0	
Surr: 2-Fluorophenol	2.6		3.332		76.9	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.3		1.671		78.6	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.7		1.671		101	25.6	137	0	0	
Surr: Phenol-d5	3.0		3.332		89.3	20.3	132	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1210692**

Hall Environmental Analysis Laboratory, Inc.

20-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **mb-4322**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **4322**	RunNo: **6287**	
Prep Date: **10/16/2012**	Analysis Date: **10/16/2012**	SeqNo: **181174**	Units: **µg/L**

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4322**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4322**	RunNo: **6287**
Prep Date: **10/16/2012**	Analysis Date: **10/16/2012**	SeqNo: **181174** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	140		200.0		71.8	44.2	126			
Surr: 2-Fluorobiphenyl	86		100.0		86.2	37	114			
Surr: 2-Fluorophenol	110		200.0		56.3	23.4	98			
Surr: 4-Terphenyl-d14	76		100.0		75.8	41.3	116			
Surr: Nitrobenzene-d5	98		100.0		97.6	39.5	118			
Surr: Phenol-d5	100		200.0		52.2	20.9	95.9			

ifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4322** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSW** Batch ID: **4322** RunNo: **6287**

Prep Date: **10/16/2012** Analysis Date: **10/16/2012** SeqNo: **181175** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	77	10	100.0	0	77.2	38.2	99.4			
4-Chloro-3-methylphenol	170	10	200.0	0	85.8	35.5	108			
2-Chlorophenol	150	10	200.0	0	74.2	29.8	106			
1,4-Dichlorobenzene	57	10	100.0	0	57.1	32.6	91.5			
2,4-Dinitrotoluene	98	10	100.0	0	98.4	44.7	112			
N-Nitrosodi-n-propylamine	89	10	100.0	0	88.6	38.5	105			
4-Nitrophenol	75	10	200.0	0	37.6	11.6	73.1			
Pentachlorophenol	86	20	200.0	0	42.8	20.2	93			
Phenol	92	10	200.0	0	46.2	23	66.1			
Pyrene	76	10	100.0	0	76.1	40.1	101			
1,2,4-Trichlorobenzene	66	10	100.0	0	65.6	37.7	99.1			
Surr: 2,4,6-Tribromophenol	170		200.0		85.9	44.2	126			
Surr: 2-Fluorobiphenyl	79		100.0		78.9	37	114			
Surr: 2-Fluorophenol	120		200.0		58.0	23.4	98			
Surr: 4-Terphenyl-d14	81		100.0		80.7	41.3	116			
Surr: Nitrobenzene-d5	85		100.0		84.6	39.5	118			
Surr: Phenol-d5	100		200.0		52.3	20.9	95.9			

Sample ID **lcsd-4322** SampType: **LCSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS02** Batch ID: **4322** RunNo: **6287**

Prep Date: **10/16/2012** Analysis Date: **10/16/2012** SeqNo: **181176** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	78	10	100.0	0	77.9	38.2	99.4	0.980	20	
4-Chloro-3-methylphenol	180	10	200.0	0	88.1	35.5	108	2.61	20	
2-Chlorophenol	150	10	200.0	0	76.6	29.8	106	3.08	20	
1,4-Dichlorobenzene	60	10	100.0	0	59.6	32.6	91.5	4.28	20	
2,4-Dinitrotoluene	110	10	100.0	0	106	44.7	112	7.64	20	
N-Nitrosodi-n-propylamine	89	10	100.0	0	88.7	38.5	105	0.113	20	
4-Nitrophenol	100	10	200.0	0	50.4	11.6	73.1	28.9	20	R
Pentachlorophenol	110	20	200.0	0	55.0	20.2	93	25.2	20	R
Phenol	97	10	200.0	0	48.6	23	66.1	5.21	20	
Pyrene	81	10	100.0	0	81.0	40.1	101	6.19	20	
1,2,4-Trichlorobenzene	66	10	100.0	0	66.3	37.7	99.1	0.970	20	
Surr: 2,4,6-Tribromophenol	190		200.0		93.8	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	82		100.0		81.6	37	114	0	0	
Surr: 2-Fluorophenol	120		200.0		60.8	23.4	98	0	0	
Surr: 4-Terphenyl-d14	78		100.0		78.5	41.3	116	0	0	
Surr: Nitrobenzene-d5	86		100.0		85.7	39.5	118	0	0	
Surr: Phenol-d5	110		200.0		53.9	20.9	95.9	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	MB-4424	SampType:	MBLK		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	4424		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185307	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-4424	SampType:	LCS		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	4424		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185308	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	102	80	120			

Sample ID	1210692-019CMS	SampType:	MS		TestCode:	EPA Method 7471: Mercury				
Client ID:	SWMU 1-35 (4-6')	Batch ID:	4424		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185333	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1641	0.01987	98.5	75	125			

Sample ID	1210692-019CMSD	SampType:	MSD		TestCode:	EPA Method 7471: Mercury				
Client ID:	SWMU 1-35 (4-6')	Batch ID:	4424		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185334	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.19	0.033	0.1665	0.01987	100	75	125	2.83	20	

Sample ID	MB-4425	SampType:	MBLK		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	4425		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185335	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-4425	SampType:	LCS		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	4425		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185336	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	99.4	80	120			

Sample ID	1210811-014CMS	SampType:	MS		TestCode:	EPA Method 7471: Mercury				
Client ID:	BatchQC	Batch ID:	4425		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185361	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.20	0.033	0.1670	0.02118	109	75	125			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210811-014CMSD**	SampType: **MSD**	TestCode: **EPA Method 7471: Mercury**	
Client ID: **BatchQC**	Batch ID: **4425**	RunNo: **6443**	
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185362**	Units: **mg/kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.20	0.033	0.1653	0.02118	109	75	125	1.12	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	MB-4498	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS	Batch ID:	4498	RunNo:	6499				
Prep Date:	10/24/2012	Analysis Date:	10/25/2012	SeqNo:	187241	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID	LCS-4498	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	LCSS	Batch ID:	4498	RunNo:	6499				
Prep Date:	10/24/2012	Analysis Date:	10/25/2012	SeqNo:	187242	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	24	2.5	25.00	0	95.8	80	120			
Arsenic	26	2.5	25.00	0	104	80	120			
Barium	24	0.10	25.00	0	97.3	80	120			
Beryllium	26	0.15	25.00	0	104	80	120			
Cadmium	25	0.10	25.00	0	101	80	120			
Chromium	24	0.30	25.00	0	97.8	80	120			
Cobalt	24	0.30	25.00	0	95.8	80	120			
Lead	25	0.25	25.00	0	99.0	80	120			
Manganese	24	0.10	25.00	0.03500	95.1	80	120			
Nickel	24	0.50	25.00	0	94.9	80	120			
Selenium	25	2.5	25.00	0	102	80	120			
Silver	5.1	0.25	5.000	0	102	80	120			
Vanadium	25	2.5	25.00	0	101	80	120			
Zinc	24	2.5	25.00	0	97.2	80	120			

Sample ID	MB-4499	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS	Batch ID:	4499	RunNo:	6598				
Prep Date:	10/24/2012	Analysis Date:	10/31/2012	SeqNo:	190715	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4499** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **PBS** Batch ID: **4499** RunNo: **6598**

Prep Date: **10/24/2012** Analysis Date: **10/31/2012** SeqNo: **190715** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Vanadium	ND	2.5								

Sample ID **LCS-4499** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **LCSS** Batch ID: **4499** RunNo: **6598**

Prep Date: **10/24/2012** Analysis Date: **10/31/2012** SeqNo: **190716** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	27	2.5	25.00	0	108	80	120			
Arsenic	29	2.5	25.00	0	117	80	120			
Barium	26	0.10	25.00	0	104	80	120			
Beryllium	28	0.15	25.00	0.01050	114	80	120			
Cadmium	27	0.10	25.00	0	108	80	120			
Chromium	26	0.30	25.00	0	102	80	120			
Lead	27	0.25	25.00	0	106	80	120			
Manganese	26	0.10	25.00	0.02950	103	80	120			
Nickel	26	0.50	25.00	0	105	80	120			
Selenium	32	2.5	25.00	0	128	80	120			S
Silver	5.1	0.25	5.000	0	101	80	120			
Vanadium	26	2.5	25.00	0.08900	105	80	120			

Sample ID **MB-4498** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **PBS** Batch ID: **4498** RunNo: **6670**

Prep Date: **10/24/2012** Analysis Date: **11/2/2012** SeqNo: **192433** Units: **mg/Kg**

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

Sample ID **LCS-4498** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **LCSS** Batch ID: **4498** RunNo: **6670**

Prep Date: **10/24/2012** Analysis Date: **11/2/2012** SeqNo: **192434** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	27	1.0	25.00	0	106	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	MB-4499	SampType:	MBLK		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS	Batch ID:	4499		RunNo:	6670				
Prep Date:	10/24/2012	Analysis Date:	11/2/2012		SeqNo:	192435	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cobalt	ND	0.30								
Iron	ND	1.0								
Selenium	ND	2.5								
Zinc	ND	2.5								

Sample ID	LCS-4499	SampType:	LCS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	LCSS	Batch ID:	4499		RunNo:	6670				
Prep Date:	10/24/2012	Analysis Date:	11/2/2012		SeqNo:	192436	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cobalt	26	0.30	25.00	0	102	80	120			
Iron	27	1.0	25.00	0	106	80	120			
Selenium	29	2.5	25.00	0	117	80	120			
Zinc	27	2.5	25.00	0	106	80	120			

Sample ID	1210692-013CMS	SampType:	MS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	SWMU 1-28 (1.5-2')	Batch ID:	4498		RunNo:	6670				
) Date:	10/24/2012	Analysis Date:	11/2/2012		SeqNo:	192482	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	12	24.95	0	33.2	75	125			S
Arsenic	26	12	24.95	0	103	75	125			
Beryllium	27	0.75	24.95	0.5601	107	75	125			
Cadmium	25	0.50	24.95	0	102	75	125			
Chromium	34	1.5	24.95	5.956	111	75	125			
Cobalt	29	1.5	24.95	4.075	99.1	75	125			
Lead	26	1.2	24.95	3.120	93.7	75	125			
Nickel	29	2.5	24.95	4.818	98.6	75	125			
Selenium	20	12	24.95	0	78.9	75	125			
Silver	5.0	1.2	4.990	0	101	75	125			
Vanadium	47	12	24.95	21.58	104	75	125			
Zinc	39	12	24.95	11.91	109	75	125			

Sample ID	1210692-013CMSD	SampType:	MSD		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	SWMU 1-28 (1.5-2')	Batch ID:	4498		RunNo:	6670				
Prep Date:	10/24/2012	Analysis Date:	11/2/2012		SeqNo:	192483	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	13	24.98	0	33.0	75	125	0	20	S
Arsenic	27	13	24.98	0	107	75	125	4.04	20	
Beryllium	27	0.75	24.98	0.5601	106	75	125	0.755	20	
Cadmium	25	0.50	24.98	0	100	75	125	1.44	20	

ifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210692-013CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **SWMU 1-28 (1.5-2')** Batch ID: **4498** RunNo: **6670**

Prep Date: **10/24/2012** Analysis Date: **11/2/2012** SeqNo: **192483** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	32	1.5	24.98	5.956	105	75	125	4.87	20	
Cobalt	28	1.5	24.98	4.075	96.5	75	125	2.12	20	
Lead	26	1.3	24.98	3.120	92.3	75	125	1.22	20	
Nickel	29	2.5	24.98	4.818	96.9	75	125	1.36	20	
Selenium	20	13	24.98	0	78.7	75	125	0.233	20	
Silver	5.0	1.3	4.995	0	99.2	75	125	1.49	20	
Vanadium	46	13	24.98	21.58	98.0	75	125	2.96	20	
Zinc	38	13	24.98	11.91	105	75	125	2.99	20	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	5ml rb	SampType:	MBLK		TestCode:	EPA Method 8015B Mod: Gasoline Range				
Client ID:	PBS	Batch ID:	R6402		RunNo:	6402				
Prep Date:		Analysis Date:	10/21/2012		SeqNo:	184129	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	480		500.0		95.0	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS		TestCode:	EPA Method 8015B Mod: Gasoline Range				
Client ID:	LCSS	Batch ID:	R6402		RunNo:	6402				
Prep Date:		Analysis Date:	10/21/2012		SeqNo:	184130	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	92.2	74.6	137			
Surr: BFB	480		500.0		95.9	70	130			

Sample ID	1210692-001bms	SampType:	MS		TestCode:	EPA Method 8015B Mod: Gasoline Range				
Client ID:	SWMU 1-20 (0-0.5')	Batch ID:	R6402		RunNo:	6402				
Prep Date:		Analysis Date:	10/21/2012		SeqNo:	184148	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	5.0	19.34	2.932	82.1	50.3	148			
Surr: BFB	350		386.8		91.5	70	130			

Sample ID	5ml-rb	SampType:	MBLK		TestCode:	EPA Method 8015B Mod: Gasoline Range				
Client ID:	PBS	Batch ID:	R6485		RunNo:	6485				
Prep Date:		Analysis Date:	10/24/2012		SeqNo:	186673	Units:	%REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	450		500.0		89.4	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS		TestCode:	EPA Method 8015B Mod: Gasoline Range				
Client ID:	LCSS	Batch ID:	R6485		RunNo:	6485				
Prep Date:		Analysis Date:	10/24/2012		SeqNo:	186676	Units:	%REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	470		500.0		93.0	70	130			

Sample ID	1210910-005A MS	SampType:	MS		TestCode:	EPA Method 8015B Mod: Gasoline Range				
Client ID:	BatchQC	Batch ID:	R6485		RunNo:	6485				
Prep Date:		Analysis Date:	10/25/2012		SeqNo:	186678	Units:	%REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	340		364.4		94.5	70	130			

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210910-005A MSD**	SampType: **MSD**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6485**	RunNo: **6485**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **186679** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	310		364.4		85.8	70	130	0	0	

Sample ID **mb-4362**	SampType: **MBLK**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **4362**	RunNo: **6485**
Prep Date: **10/17/2012**	Analysis Date: **10/24/2012**	SeqNo: **186691** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	460		500.0		92.1	70	130			

Sample ID **LCS-4362**	SampType: **LCS**	TestCode: **EPA Method 8015B Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **4362**	RunNo: **6485**
Prep Date: **10/17/2012**	Analysis Date: **10/24/2012**	SeqNo: **186692** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.4	74.6	137			
Surr: BFB	450		500.0		89.2	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210692**

20-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **b6**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **PBW**	Batch ID: **R6394**	RunNo: **6394**							
Prep Date:	Analysis Date: **10/20/2012**	SeqNo: **184074**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.6		10.00		95.8	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **LCSW**	Batch ID: **R6394**	RunNo: **6394**							
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184077**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.43	0.050	0.5000	0	86.2	85	115			
Surr: BFB	10		10.00		99.9	70	130			

Sample ID **1210660-001ams**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **BatchQC**	Batch ID: **R6394**	RunNo: **6394**							
Prep Date:	Analysis Date: **10/20/2012**	SeqNo: **184078**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.0	0.25	2.500	1.915	82.1	70	130			
r: BFB	46		50.00		91.6	70	130			

Sample ID **1210660-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **BatchQC**	Batch ID: **R6394**	RunNo: **6394**							
Prep Date:	Analysis Date: **10/20/2012**	SeqNo: **184079**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	3.8	0.25	2.500	1.915	76.4	70	130	3.70	20	
Surr: BFB	51		50.00		102	70	130	0	0	

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **PBW**	Batch ID: **R6402**	RunNo: **6402**							
Prep Date:	Analysis Date: **10/21/2012**	SeqNo: **184122**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.5		10.00		95.0	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **LCSW**	Batch ID: **R6402**	RunNo: **6402**							
Prep Date:	Analysis Date: **10/21/2012**	SeqNo: **184125**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	92.2	85	115			
Surr: BFB	9.6		10.00		95.9	70	130			

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1210692

Received by/date: AF 10/13/12

Logged By: **Michelle Garcia** 10/13/2012 8:30:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 10/15/2012 9:55:26 AM Michelle Garcia

Reviewed By: 10/15/12

Chain of Custody

1. Were seals intact? — Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? — Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? — Client

Log In

4. Coolers are present? (see 19. for cooler specific information) — Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? — Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C — Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? — Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? — Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? — Yes ☑ No ☐
10. Was preservative added to bottles? — Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? — Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? — Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) — Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? — Yes ☑ No ☐
15. Is it clear what analyses were requested? — Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) — Yes ☑ No ☐

# of preserved bottles checked for pH: 3 3 (<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? — Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.1	Good	Not Present			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.7° C

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210092	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/11/12	1220	SOIL	SWMU 1-20 (0-0.5)	2 VIALS	8081	-001										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1220		SWMU 1-20 (0-0.5') DUP	2 VIALS	8081	-002										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X		X			
	1230		SWMU 1-20 (1.5-2')	2 VIALS	8081	-003										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1245		SWMU 1-20 (4-6')	2 VIALS	8081	-004										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			

Date: 10/13/12 Time: 08:30 Relinquished by: [signature] Received by: [signature] Date: 10/13/12 Time: 8:30

Date: Time: Relinquished by: Received by: Date: Time:

Remarks:

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

Chain-of-Custody Record

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GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.7°C

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Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No 1210092	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/1/12	1300	SOIL	SWMU 1-20(10-12')	2 VIALS	SOBI	-005										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1420		SWMU 1-38(0-0.5)	2 VIALS	SOBI	-006										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1430		SWMU 1-38(1.5-2')	2 VIALS	SOBI	-007										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X	X		
	1445		SWMU 1-38(6-8')	2 VIALS	SOBI	-008										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/13/12	08:30			10/13/12	0830
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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Chain-of-Custody Record

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GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: [ ] Yes [ ] No
Sample Temperature: 2

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Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210913
10/12/12	0900	SOIL	SWMU 1-27(0-0.5')	2 VIALS	SOBI	-009
				2 VIALS	MeOH	
				3 JARS	—	
	0916		SWMU 1-27(1.5-2')	2 VIALS	SOBI	-010
				2 VIALS	MeOH	
				3 JARS	—	
	0950		SWMU 1-28(0-0.5')	2 VIALS	SOBI	-011
				2 VIALS	MeOH	
				3 JARS	—	
	1010		SWMU 1-28(1.5-2')	2 VIALS	SOBI	-012
				2 VIALS	MeOH	
				3 JARS	—	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
									X						
									X						
									X	X	X	X			
									X						
									X						
									X						
									X	X	X	X			
									X						
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			

Date: 10/13/12 Time: 0830 Relinquished by: [signature] Received by: [signature] Date Time 10/13/12 0830
Date: Time: Relinquished by: Received by: Date Time

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: [X] Yes [ ] No
Sample Temperature: 2.1 °C

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Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210019	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/12/12	1010	SOIL	SWMU 1-28(1.5-2)	2 VIALS	SOBI	-013										X						
↓	↓	↓	DUP	2 VIALS	MEOH											X						
↓	↓	↓	↓	3 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/13/12	0830				
Date:	Time:	Relinquished by:	Received by:	Date	Time
				10/13/12	0830

Remarks:

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Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH – RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH – RPS
Sampler: TRACY PAYNE-RPS
On Ice: [X] Yes [ ] No
Sample Temperature: 2°C

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Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210699	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/12/12	1140	SOIL	SWMU 1-30(0-0.5')	2 VIALS	SOBI	-014										X						
				2 VIALS	MeOH											X						
				3 JARS	–											X	X	X	X			
	1200		SWMU 1-30(1.5-2')	2 VIALS	SOBI	-015										X						
				2 VIALS	MeOH											X						
				3 JARS	–											X	X	X	X			
	1210		SWMU 1-30(4-6')	2 VIALS	SOBI	-016										X						
				2 VIALS	MeOH											X						
				3 JARS	–											X	X	X	X			
	1245		SWMU 1-35(0-0.5')	2 VIALS	SOBI	-017										X						
				2 VIALS	MeOH											X						
				3 JARS	–											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/13/12	0830			10/13/12	0830
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: ☐ Yes ☐ No
Sample Temperature: 2.7°C

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210092	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/12/12	1300	SOIL	SWMU 1-35(1.5'-2')	2 VIALS	SOB1	-018										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1310		SWMU 1-35(4-6')	2 VIALS	SOB1	-019										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
10/13/12	—	MEOH	MEOH BLANK	2 VIALS	MEOH	-020										X						

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/13/12	0830			10/13/12	0830
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: ☒ Yes ☐ No
Sample Temperature: 2 °

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210690	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)+TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/12/12	1405	SOIL	SWMU 1-13(0-0.5')	2 VIALS	SOBI	-021										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1425		SWMU 1-13(1.5-2')	2 VIALS	SOBI	-022										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1435		SWMU 1-13(2-4')	2 VIALS	SOBI	-023										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1500		SWMU 1-13(4-6')	2 VIALS	SOBI	-024										X						
				2 VIALS	MeOH											X						
↓	↓	↓	↓	3 JARS	—											X	X	X	X			

Date	Time	Relinquished by:	Received by:	Date	Time
10/13/12	0830			10/13/12	0830
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.7°C

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210692	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/12/12	1500	SOIL	SWMU1-13(4-6')	2 VIALS	8081	-025										X						
↓	↓	↓	DUP	2 VIALS	MEOH											X						
↓	↓	↓	↓	2 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/13/12	0830			10/13/12	0830
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: [X] Yes [ ] No
Sample Temperature: 2 °C

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/11/12	1000	GW	SWMU 1-37 GW	6 VOA	HCL & NEAT	-026										X						
				1 AMBER	-												X					
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NaOH														X			
				1 PLASTIC	-														X			
	1545	W	EB101112	6 VOA	HCL & NEAT	-027										X						
				1 AMBER	-												X					
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NaOH														X			
				1 PLASTIC	-														X			

Date: 10/13/12 Time: 0830 Relinquished by: [signature] Received by: [signature] Date: 10/13/12 Time: 0830
Date: Time: Relinquished by: Received by: Date: Time:

Remarks:

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

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.7°C

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

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210628	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	METALS				Air Bubbles (Y or N)
10/12/12	1620	W	EB101212	6 VOA	HCL	-628										X						
				1 AMBER	—												X					
				1 PLASTIC	HNO_3													X				
				1 PLASTIC	NaOH													X				
				1 PLASTIC	—													X				

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/13/12	0830			10/13/12	0830
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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

Rpt	T	Analyte	Units	Synonym	MDL	LOD	LOQ
☐	A	Aluminum	mg/Kg		0.4481	0	
☑	A	Antimony	mg/Kg		0.629	0	
☑	A	Arsenic	mg/Kg		0.6263	0	
☑	A	Barium	mg/Kg		0.0609	0	
☑	A	Beryllium	mg/Kg		0.0093	0	
☐	A	Boron	mg/Kg		0.0826	0	
☑	A	Cadmium	mg/Kg		0.0271	0	
☐	A	Calcium	mg/Kg		6.9713	0	
☑	A	Chromium	mg/Kg		0.1184	0	
☑	A	Cobalt	mg/Kg		0.0689	0	
☐	A	Copper	mg/Kg		0.2323	0	
☑	A	Iron	mg/Kg		0.7476	0	
☑	A	Lead	mg/Kg		0.2194	0	
☐	A	Magnesium	mg/Kg		0.4651	0	
☑	A	Manganese	mg/Kg		0.0212	0	
☐	A	Molybdenum	mg/Kg		0.1423	0	
☑	A	Nickel	mg/Kg		0.1668	0	
☐	A	Potassium	mg/Kg		17.3925	0	
☑	A	Selenium	mg/Kg		1.4025	0	
☑	A	Silver	mg/Kg		0.0354	0	
☐	A	Sodium	mg/Kg		8.4278	0	
☐	A	Thallium	mg/Kg		1.1557	0	
☐	A	Tin	mg/Kg		0.8261	0	
☐	A	Titanium	mg/Kg		0.0342	0	
☐	A	Uranium	mg/Kg		0.7296	0	
☑	A	Vanadium	mg/Kg		0.0565	0	
☑	A	Zinc	mg/Kg		1.0066	0	
☐	I	Yttrium	%		0	0	
☐	I	Yttrium Radial	%		0	0	
☐	X	Uranium-confirmation	mg/Kg		0	0	
☐	X	Silicon	mg/Kg		0	0	

+ Hg
+ Cn

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

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

November 28, 2012

Scott Crouch
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.1 OrderNo.: 1210811

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 18 sample(s) on 10/17/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1210811**
Date Reported: **11/28/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-9 (0-0.5')
Collection Date: 10/15/2012 10:55:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/19/2012 7:02:56 PM
Motor Oil Range Organics (MRO)	280	50		mg/Kg	1	10/19/2012 7:02:56 PM
Surr: DNOP	99.5	77.6-140		%REC	1	10/19/2012 7:02:56 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/23/2012 12:12:24 AM
Surr: BFB	92.8	84-116		%REC	1	10/23/2012 12:12:24 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.18	0.033		mg/kg	1	10/23/2012 5:43:45 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	11/2/2012 10:39:08 AM
Arsenic	ND	5.0		mg/Kg	2	11/2/2012 10:39:08 AM
Barium	620	2.0		mg/Kg	20	11/2/2012 3:25:22 PM
Beryllium	0.71	0.30		mg/Kg	2	11/2/2012 10:39:08 AM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 10:39:08 AM
Chromium	24	0.60		mg/Kg	2	11/2/2012 10:39:08 AM
Cobalt	5.0	0.60		mg/Kg	2	11/2/2012 10:39:08 AM
Iron	12000	500		mg/Kg	500	11/2/2012 3:27:50 PM
Lead	7.0	0.50		mg/Kg	2	11/2/2012 10:39:08 AM
Manganese	600	2.0		mg/Kg	20	11/2/2012 3:25:22 PM
Nickel	15	1.0		mg/Kg	2	11/2/2012 10:39:08 AM
Selenium	ND	5.0		mg/Kg	2	11/2/2012 10:39:08 AM
Silver	ND	0.50		mg/Kg	2	11/2/2012 10:39:08 AM
Vanadium	21	5.0		mg/Kg	2	11/2/2012 10:39:08 AM
Zinc	53	5.0		mg/Kg	2	11/2/2012 10:39:08 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Acenaphthylene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Aniline	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Anthracene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Azobenzene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Benz(a)anthracene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Benzoic acid	ND	5.0		mg/Kg	1	10/21/2012 11:36:12 PM
Benzyl alcohol	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-9 (0-0.5')
Collection Date: 10/15/2012 10:55:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	5.0		mg/Kg	1	10/21/2012 11:36:12 PM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Carbazole	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
4-Chloro-3-methylphenol	ND	5.0		mg/Kg	1	10/21/2012 11:36:12 PM
4-Chloroaniline	ND	5.0		mg/Kg	1	10/21/2012 11:36:12 PM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	10/21/2012 11:36:12 PM
2-Chlorophenol	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Chrysene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Di-n-butyl phthalate	ND	5.0		mg/Kg	1	10/21/2012 11:36:12 PM
Di-n-octyl phthalate	ND	4.0		mg/Kg	1	10/21/2012 11:36:12 PM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Dibenzofuran	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
3,3´-Dichlorobenzidine	ND	2.5		mg/Kg	1	10/21/2012 11:36:12 PM
Diethyl phthalate	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Dimethyl phthalate	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	10/21/2012 11:36:12 PM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	10/21/2012 11:36:12 PM
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	1	10/21/2012 11:36:12 PM
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	10/21/2012 11:36:12 PM
2,4-Dinitrotoluene	ND	5.0		mg/Kg	1	10/21/2012 11:36:12 PM
2,6-Dinitrotoluene	ND	5.0		mg/Kg	1	10/21/2012 11:36:12 PM
Fluoranthene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Fluorene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Hexachlorobenzene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Hexachloroethane	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Isophorone	ND	5.0		mg/Kg	1	10/21/2012 11:36:12 PM
1-Methylnaphthalene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
2-Methylnaphthalene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
2-Methylphenol	ND	5.0		mg/Kg	1	10/21/2012 11:36:12 PM
3+4-Methylphenol	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Naphthalene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
2-Nitroaniline	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-9 (0-0.5')
Collection Date: 10/15/2012 10:55:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
4-Nitroaniline	ND	4.0		mg/Kg	1	10/21/2012 11:36:12 PM
Nitrobenzene	ND	5.0		mg/Kg	1	10/21/2012 11:36:12 PM
2-Nitrophenol	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
4-Nitrophenol	ND	2.5		mg/Kg	1	10/21/2012 11:36:12 PM
Pentachlorophenol	ND	4.0		mg/Kg	1	10/21/2012 11:36:12 PM
Phenanthrene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Phenol	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Pyrene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Pyridine	ND	5.0		mg/Kg	1	10/21/2012 11:36:12 PM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	10/21/2012 11:36:12 PM
Surr: 2,4,6-Tribromophenol	113	21.3-145		%REC	1	10/21/2012 11:36:12 PM
Surr: 2-Fluorobiphenyl	105	20-131		%REC	1	10/21/2012 11:36:12 PM
Surr: 2-Fluorophenol	87.6	11.9-130		%REC	1	10/21/2012 11:36:12 PM
Surr: 4-Terphenyl-d14	129	25.1-149		%REC	1	10/21/2012 11:36:12 PM
Surr: Nitrobenzene-d5	97.8	25.6-137		%REC	1	10/21/2012 11:36:12 PM
Surr: Phenol-d5	95.1	20.3-132		%REC	1	10/21/2012 11:36:12 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00139	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Toluene	0.00215	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Ethylbenzene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Xylenes, Total	ND	0.00153		mg/Kg	1	10/18/2012 12:09:33 AM
Methyl tert-butyl ether (MTBE)	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,2,4-Trimethylbenzene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,3,5-Trimethylbenzene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,2-Dichloroethane (EDC)	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,2-Dibromoethane (EDB)	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Naphthalene	ND	0.00153		mg/Kg	1	10/18/2012 12:09:33 AM
1-Methylnaphthalene	ND	0.00306		mg/Kg	1	10/18/2012 12:09:33 AM
2-Methylnaphthalene	ND	0.00306		mg/Kg	1	10/18/2012 12:09:33 AM
Acetone	0.0395	0.00766		mg/Kg	1	10/18/2012 12:09:33 AM
Bromobenzene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Bromodichloromethane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Bromoform	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Bromomethane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
2-Butanone	ND	0.00766		mg/Kg	1	10/18/2012 12:09:33 AM
Carbon tetrachloride	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Chlorobenzene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Chloroethane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-9 (0-0.5')
Collection Date: 10/15/2012 10:55:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Chloromethane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
2-Chlorotoluene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Carbon disulfide	ND	0.00766		mg/Kg	1	10/18/2012 12:09:33 AM
4-Chlorotoluene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
cis-1,2-DCE	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
cis-1,3-Dichloropropene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,2-Dibromo-3-chloropropane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Dibromochloromethane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Dibromomethane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,2-Dichlorobenzene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,3-Dichlorobenzene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,4-Dichlorobenzene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Dichlorodifluoromethane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,1-Dichloroethane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,1-Dichloroethene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,2-Dichloropropane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,3-Dichloropropane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
2,2-Dichloropropane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,1-Dichloropropene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Hexachlorobutadiene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Isopropylbenzene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
4-Isopropyltoluene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Methylene chloride	ND	0.00230		mg/Kg	1	10/18/2012 12:09:33 AM
n-Butylbenzene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
2-Hexanone	ND	0.00766		mg/Kg	1	10/18/2012 12:09:33 AM
n-Propylbenzene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
sec-Butylbenzene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Styrene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
4-Methyl-2-pentanone	ND	0.00766		mg/Kg	1	10/18/2012 12:09:33 AM
tert-Butylbenzene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,1,1,2-Tetrachloroethane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,1,2,2-Tetrachloroethane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Tetrachloroethene (PCE)	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
trans-1,2-DCE	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
trans-1,3-Dichloropropene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,2,3-Trichlorobenzene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,2,4-Trichlorobenzene	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,1,1-Trichloroethane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
1,1,2-Trichloroethane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Trichloroethene (TCE)	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Trichlorofluoromethane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-9 (0-0.5')
Collection Date: 10/15/2012 10:55:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Vinyl chloride	ND	0.000766		mg/Kg	1	10/18/2012 12:09:33 AM
Surr: 1,2-Dichloroethane-d4	99.3	70-130		%REC	1	10/18/2012 12:09:33 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	10/18/2012 12:09:33 AM
Surr: Dibromofluoromethane	117	70-130		%REC	1	10/18/2012 12:09:33 AM
Surr: Toluene-d8	94.5	70-130		%REC	1	10/18/2012 12:09:33 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-9 (1.5-2')
Collection Date: 10/15/2012 11:05:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/18/2012 11:01:44 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/18/2012 11:01:44 AM
Surr: DNOP	102	77.6-140		%REC	1	10/18/2012 11:01:44 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/23/2012 12:41:05 AM
Surr: BFB	92.5	84-116		%REC	1	10/23/2012 12:41:05 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 5:45:32 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	11/2/2012 10:41:39 AM
Arsenic	ND	5.0		mg/Kg	2	11/2/2012 10:41:39 AM
Barium	200	1.0		mg/Kg	10	11/2/2012 3:34:47 PM
Beryllium	0.84	0.30		mg/Kg	2	11/2/2012 10:41:39 AM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 10:41:39 AM
Chromium	8.7	0.60		mg/Kg	2	11/2/2012 10:41:39 AM
Cobalt	4.3	0.60		mg/Kg	2	11/2/2012 10:41:39 AM
Iron	12000	500		mg/Kg	500	11/2/2012 3:37:14 PM
Lead	2.7	0.50		mg/Kg	2	11/2/2012 10:41:39 AM
Manganese	300	1.0		mg/Kg	10	11/2/2012 3:34:47 PM
Nickel	7.1	1.0		mg/Kg	2	11/2/2012 10:41:39 AM
Selenium	ND	5.0		mg/Kg	2	11/2/2012 10:41:39 AM
Silver	ND	0.50		mg/Kg	2	11/2/2012 10:41:39 AM
Vanadium	16	5.0		mg/Kg	2	11/2/2012 10:41:39 AM
Zinc	14	5.0		mg/Kg	2	11/2/2012 10:41:39 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Aniline	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Anthracene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Azobenzene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/22/2012 12:05:27 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-9 (1.5-2')
Collection Date: 10/15/2012 11:05:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/22/2012 12:05:27 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Carbazole	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/22/2012 12:05:27 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/22/2012 12:05:27 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/22/2012 12:05:27 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Chrysene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/22/2012 12:05:27 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 12:05:27 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/22/2012 12:05:27 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 12:05:27 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/22/2012 12:05:27 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/22/2012 12:05:27 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/22/2012 12:05:27 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/22/2012 12:05:27 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/22/2012 12:05:27 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Fluorene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Isophorone	ND	0.50		mg/Kg	1	10/22/2012 12:05:27 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/22/2012 12:05:27 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Naphthalene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-9 (1.5-2')
Collection Date: 10/15/2012 11:05:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 12:05:27 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/22/2012 12:05:27 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/22/2012 12:05:27 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/22/2012 12:05:27 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Phenol	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Pyrene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Pyridine	ND	0.50		mg/Kg	1	10/22/2012 12:05:27 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/22/2012 12:05:27 AM
Surr: 2,4,6-Tribromophenol	84.6	21.3-145		%REC	1	10/22/2012 12:05:27 AM
Surr: 2-Fluorobiphenyl	89.0	20-131		%REC	1	10/22/2012 12:05:27 AM
Surr: 2-Fluorophenol	78.4	11.9-130		%REC	1	10/22/2012 12:05:27 AM
Surr: 4-Terphenyl-d14	72.6	25.1-149		%REC	1	10/22/2012 12:05:27 AM
Surr: Nitrobenzene-d5	96.4	25.6-137		%REC	1	10/22/2012 12:05:27 AM
Surr: Phenol-d5	84.1	20.3-132		%REC	1	10/22/2012 12:05:27 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00193	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Toluene	0.00164	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Ethylbenzene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Xylenes, Total	ND	0.00154		mg/Kg	1	10/17/2012 3:26:38 PM
Methyl tert-butyl ether (MTBE)	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,2,4-Trimethylbenzene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,3,5-Trimethylbenzene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,2-Dichloroethane (EDC)	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,2-Dibromoethane (EDB)	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Naphthalene	ND	0.00154		mg/Kg	1	10/17/2012 3:26:38 PM
1-Methylnaphthalene	ND	0.00308		mg/Kg	1	10/17/2012 3:26:38 PM
2-Methylnaphthalene	ND	0.00308		mg/Kg	1	10/17/2012 3:26:38 PM
Acetone	0.0326	0.00769		mg/Kg	1	10/17/2012 3:26:38 PM
Bromobenzene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Bromodichloromethane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Bromoform	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Bromomethane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
2-Butanone	ND	0.00769		mg/Kg	1	10/17/2012 3:26:38 PM
Carbon tetrachloride	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Chlorobenzene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Chloroethane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-9 (1.5-2')
Collection Date: 10/15/2012 11:05:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Chloromethane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
2-Chlorotoluene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Carbon disulfide	ND	0.00769		mg/Kg	1	10/17/2012 3:26:38 PM
4-Chlorotoluene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
cis-1,2-DCE	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
cis-1,3-Dichloropropene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,2-Dibromo-3-chloropropane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Dibromochloromethane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Dibromomethane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,2-Dichlorobenzene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,3-Dichlorobenzene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,4-Dichlorobenzene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Dichlorodifluoromethane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,1-Dichloroethane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,1-Dichloroethene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,2-Dichloropropane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,3-Dichloropropane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
2,2-Dichloropropane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,1-Dichloropropene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Hexachlorobutadiene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Isopropylbenzene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
4-Isopropyltoluene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Methylene chloride	ND	0.00231		mg/Kg	1	10/17/2012 3:26:38 PM
n-Butylbenzene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
2-Hexanone	ND	0.00769		mg/Kg	1	10/17/2012 3:26:38 PM
n-Propylbenzene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
sec-Butylbenzene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Styrene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
4-Methyl-2-pentanone	ND	0.00769		mg/Kg	1	10/17/2012 3:26:38 PM
tert-Butylbenzene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,1,1,2-Tetrachloroethane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,1,2,2-Tetrachloroethane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Tetrachloroethene (PCE)	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
trans-1,2-DCE	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
trans-1,3-Dichloropropene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,2,3-Trichlorobenzene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,2,4-Trichlorobenzene	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,1,1-Trichloroethane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
1,1,2-Trichloroethane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Trichloroethene (TCE)	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Trichlorofluoromethane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-9 (1.5-2')
Collection Date: 10/15/2012 11:05:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Vinyl chloride	ND	0.000769		mg/Kg	1	10/17/2012 3:26:38 PM
Surr: 1,2-Dichloroethane-d4	92.1	70-130		%REC	1	10/17/2012 3:26:38 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	10/17/2012 3:26:38 PM
Surr: Dibromofluoromethane	98.4	70-130		%REC	1	10/17/2012 3:26:38 PM
Surr: Toluene-d8	94.1	70-130		%REC	1	10/17/2012 3:26:38 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-10 (0-0.5')
Collection Date: 10/15/2012 11:20:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	45	9.8		mg/Kg	1	10/19/2012 8:07:52 PM
Motor Oil Range Organics (MRO)	230	49		mg/Kg	1	10/19/2012 8:07:52 PM
Surr: DNOP	105	77.6-140		%REC	1	10/19/2012 8:07:52 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/23/2012 1:09:44 AM
Surr: BFB	92.9	84-116		%REC	1	10/23/2012 1:09:44 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.20	0.033		mg/kg	1	10/23/2012 5:47:19 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	11/2/2012 10:44:04 AM
Arsenic	ND	5.0		mg/Kg	2	11/2/2012 10:44:04 AM
Barium	590	2.0		mg/Kg	20	11/2/2012 3:40:07 PM
Beryllium	0.65	0.30		mg/Kg	2	11/2/2012 10:44:04 AM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 10:44:04 AM
Chromium	24	0.60		mg/Kg	2	11/2/2012 10:44:04 AM
Cobalt	5.0	0.60		mg/Kg	2	11/2/2012 10:44:04 AM
Iron	14000	500		mg/Kg	500	11/2/2012 3:42:33 PM
Lead	9.1	0.50		mg/Kg	2	11/2/2012 10:44:04 AM
Manganese	560	2.0		mg/Kg	20	11/2/2012 3:40:07 PM
Nickel	14	1.0		mg/Kg	2	11/2/2012 10:44:04 AM
Selenium	ND	5.0		mg/Kg	2	11/2/2012 10:44:04 AM
Silver	ND	0.50		mg/Kg	2	11/2/2012 10:44:04 AM
Vanadium	24	5.0		mg/Kg	2	11/2/2012 10:44:04 AM
Zinc	70	5.0		mg/Kg	2	11/2/2012 10:44:04 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Acenaphthylene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Aniline	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Anthracene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Azobenzene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Benzoic acid	ND	2.5		mg/Kg	1	10/22/2012 1:33:01 AM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-10 (0-0.5')
Collection Date: 10/15/2012 11:20:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/22/2012 1:33:01 AM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Carbazole	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/22/2012 1:33:01 AM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/22/2012 1:33:01 AM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	10/22/2012 1:33:01 AM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Chrysene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/22/2012 1:33:01 AM
Di-n-octyl phthalate	ND	2.0		mg/Kg	1	10/22/2012 1:33:01 AM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Dibenzofuran	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	10/22/2012 1:33:01 AM
Diethyl phthalate	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/22/2012 1:33:01 AM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/22/2012 1:33:01 AM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/22/2012 1:33:01 AM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/22/2012 1:33:01 AM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/22/2012 1:33:01 AM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/22/2012 1:33:01 AM
Fluoranthene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Fluorene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Hexachloroethane	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Isophorone	ND	2.5		mg/Kg	1	10/22/2012 1:33:01 AM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
2-Methylphenol	ND	2.5		mg/Kg	1	10/22/2012 1:33:01 AM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Naphthalene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-10 (0-0.5')
Collection Date: 10/15/2012 11:20:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
4-Nitroaniline	ND	2.0		mg/Kg	1	10/22/2012 1:33:01 AM
Nitrobenzene	ND	2.5		mg/Kg	1	10/22/2012 1:33:01 AM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
4-Nitrophenol	ND	1.2		mg/Kg	1	10/22/2012 1:33:01 AM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/22/2012 1:33:01 AM
Phenanthrene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Phenol	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Pyrene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Pyridine	ND	2.5		mg/Kg	1	10/22/2012 1:33:01 AM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/22/2012 1:33:01 AM
Surr: 2,4,6-Tribromophenol	89.3	21.3-145		%REC	1	10/22/2012 1:33:01 AM
Surr: 2-Fluorobiphenyl	94.2	20-131		%REC	1	10/22/2012 1:33:01 AM
Surr: 2-Fluorophenol	63.5	11.9-130		%REC	1	10/22/2012 1:33:01 AM
Surr: 4-Terphenyl-d14	97.9	25.1-149		%REC	1	10/22/2012 1:33:01 AM
Surr: Nitrobenzene-d5	80.1	25.6-137		%REC	1	10/22/2012 1:33:01 AM
Surr: Phenol-d5	76.9	20.3-132		%REC	1	10/22/2012 1:33:01 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00176	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Toluene	0.00562	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Ethylbenzene	0.00322	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Xylenes, Total	0.0189	0.00178		mg/Kg	1	10/18/2012 12:47:54 PM
Methyl tert-butyl ether (MTBE)	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,2,4-Trimethylbenzene	0.00282	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,3,5-Trimethylbenzene	0.00105	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,2-Dichloroethane (EDC)	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,2-Dibromoethane (EDB)	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Naphthalene	ND	0.00178		mg/Kg	1	10/18/2012 12:47:54 PM
1-Methylnaphthalene	ND	0.00356		mg/Kg	1	10/18/2012 12:47:54 PM
2-Methylnaphthalene	ND	0.00356		mg/Kg	1	10/18/2012 12:47:54 PM
Acetone	0.146	0.00890		mg/Kg	1	10/18/2012 12:47:54 PM
Bromobenzene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Bromodichloromethane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Bromoform	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Bromomethane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
2-Butanone	ND	0.00890		mg/Kg	1	10/18/2012 12:47:54 PM
Carbon tetrachloride	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Chlorobenzene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Chloroethane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-10 (0-0.5')
Collection Date: 10/15/2012 11:20:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Chloromethane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
2-Chlorotoluene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Carbon disulfide	ND	0.00890		mg/Kg	1	10/18/2012 12:47:54 PM
4-Chlorotoluene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
cis-1,2-DCE	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
cis-1,3-Dichloropropene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,2-Dibromo-3-chloropropane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Dibromochloromethane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Dibromomethane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,2-Dichlorobenzene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,3-Dichlorobenzene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,4-Dichlorobenzene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Dichlorodifluoromethane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,1-Dichloroethane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,1-Dichloroethene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,2-Dichloropropane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,3-Dichloropropane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
2,2-Dichloropropane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,1-Dichloropropene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Hexachlorobutadiene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Isopropylbenzene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
4-Isopropyltoluene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Methylene chloride	ND	0.00267		mg/Kg	1	10/18/2012 12:47:54 PM
n-Butylbenzene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
2-Hexanone	ND	0.00890		mg/Kg	1	10/18/2012 12:47:54 PM
n-Propylbenzene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
sec-Butylbenzene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Styrene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
4-Methyl-2-pentanone	ND	0.00890		mg/Kg	1	10/18/2012 12:47:54 PM
tert-Butylbenzene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,1,1,2-Tetrachloroethane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,1,2,2-Tetrachloroethane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Tetrachloroethene (PCE)	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
trans-1,2-DCE	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
trans-1,3-Dichloropropene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,2,3-Trichlorobenzene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,2,4-Trichlorobenzene	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,1,1-Trichloroethane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
1,1,2-Trichloroethane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Trichloroethene (TCE)	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Trichlorofluoromethane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-10 (0-0.5')
Collection Date: 10/15/2012 11:20:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Vinyl chloride	ND	0.000890		mg/Kg	1	10/18/2012 12:47:54 PM
Surr: 1,2-Dichloroethane-d4	98.9	70-130		%REC	1	10/18/2012 12:47:54 PM
Surr: 4-Bromofluorobenzene	130	70-130	S	%REC	1	10/18/2012 12:47:54 PM
Surr: Dibromofluoromethane	108	70-130		%REC	1	10/18/2012 12:47:54 PM
Surr: Toluene-d8	93.5	70-130		%REC	1	10/18/2012 12:47:54 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-10 (1.5-2')
Collection Date: 10/15/2012 11:30:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	42	9.8		mg/Kg	1	10/19/2012 8:29:31 PM
Motor Oil Range Organics (MRO)	210	49		mg/Kg	1	10/19/2012 8:29:31 PM
Surr: DNOP	100	77.6-140		%REC	1	10/19/2012 8:29:31 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/23/2012 1:38:24 AM
Surr: BFB	93.1	84-116		%REC	1	10/23/2012 1:38:24 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.091	0.033		mg/kg	1	10/23/2012 5:49:04 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	11/2/2012 10:46:49 AM
Arsenic	ND	5.0		mg/Kg	2	11/2/2012 10:46:49 AM
Barium	580	2.0		mg/Kg	20	11/2/2012 3:45:28 PM
Beryllium	0.54	0.30		mg/Kg	2	11/2/2012 10:46:49 AM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 10:46:49 AM
Chromium	15	0.60		mg/Kg	2	11/2/2012 10:46:49 AM
Cobalt	4.2	0.60		mg/Kg	2	11/2/2012 10:46:49 AM
Iron	7400	500		mg/Kg	500	11/2/2012 3:47:54 PM
Lead	3.0	0.50		mg/Kg	2	11/2/2012 10:46:49 AM
Manganese	790	2.0		mg/Kg	20	11/2/2012 3:45:28 PM
Nickel	11	1.0		mg/Kg	2	11/2/2012 10:46:49 AM
Selenium	ND	5.0		mg/Kg	2	11/2/2012 10:46:49 AM
Silver	ND	0.50		mg/Kg	2	11/2/2012 10:46:49 AM
Vanadium	22	5.0		mg/Kg	2	11/2/2012 10:46:49 AM
Zinc	26	5.0		mg/Kg	2	11/2/2012 10:46:49 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Acenaphthylene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Aniline	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Anthracene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Azobenzene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Benz(a)anthracene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Benzoic acid	ND	5.0		mg/Kg	1	10/22/2012 2:02:14 AM
Benzyl alcohol	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-10 (1.5-2')
Collection Date: 10/15/2012 11:30:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	5.0		mg/Kg	1	10/22/2012 2:02:14 AM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Carbazole	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
4-Chloro-3-methylphenol	ND	5.0		mg/Kg	1	10/22/2012 2:02:14 AM
4-Chloroaniline	ND	5.0		mg/Kg	1	10/22/2012 2:02:14 AM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	10/22/2012 2:02:14 AM
2-Chlorophenol	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Chrysene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Di-n-butyl phthalate	ND	5.0		mg/Kg	1	10/22/2012 2:02:14 AM
Di-n-octyl phthalate	ND	4.0		mg/Kg	1	10/22/2012 2:02:14 AM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Dibenzofuran	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
3,3´-Dichlorobenzidine	ND	2.5		mg/Kg	1	10/22/2012 2:02:14 AM
Diethyl phthalate	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Dimethyl phthalate	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	10/22/2012 2:02:14 AM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	10/22/2012 2:02:14 AM
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	1	10/22/2012 2:02:14 AM
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	10/22/2012 2:02:14 AM
2,4-Dinitrotoluene	ND	5.0		mg/Kg	1	10/22/2012 2:02:14 AM
2,6-Dinitrotoluene	ND	5.0		mg/Kg	1	10/22/2012 2:02:14 AM
Fluoranthene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Fluorene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Hexachlorobenzene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Hexachloroethane	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Isophorone	ND	5.0		mg/Kg	1	10/22/2012 2:02:14 AM
1-Methylnaphthalene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
2-Methylnaphthalene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
2-Methylphenol	ND	5.0		mg/Kg	1	10/22/2012 2:02:14 AM
3+4-Methylphenol	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Naphthalene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
2-Nitroaniline	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-10 (1.5-2')
Collection Date: 10/15/2012 11:30:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
4-Nitroaniline	ND	4.0		mg/Kg	1	10/22/2012 2:02:14 AM
Nitrobenzene	ND	5.0		mg/Kg	1	10/22/2012 2:02:14 AM
2-Nitrophenol	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
4-Nitrophenol	ND	2.5		mg/Kg	1	10/22/2012 2:02:14 AM
Pentachlorophenol	ND	4.0		mg/Kg	1	10/22/2012 2:02:14 AM
Phenanthrene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Phenol	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Pyrene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Pyridine	ND	5.0		mg/Kg	1	10/22/2012 2:02:14 AM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	10/22/2012 2:02:14 AM
Surr: 2,4,6-Tribromophenol	106	21.3-145		%REC	1	10/22/2012 2:02:14 AM
Surr: 2-Fluorobiphenyl	101	20-131		%REC	1	10/22/2012 2:02:14 AM
Surr: 2-Fluorophenol	90.3	11.9-130		%REC	1	10/22/2012 2:02:14 AM
Surr: 4-Terphenyl-d14	128	25.1-149		%REC	1	10/22/2012 2:02:14 AM
Surr: Nitrobenzene-d5	96.2	25.6-137		%REC	1	10/22/2012 2:02:14 AM
Surr: Phenol-d5	95.3	20.3-132		%REC	1	10/22/2012 2:02:14 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.000934	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Toluene	0.00346	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Ethylbenzene	0.000992	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Xylenes, Total	0.00384	0.00165		mg/Kg	1	10/17/2012 4:28:16 PM
Methyl tert-butyl ether (MTBE)	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,2,4-Trimethylbenzene	0.00143	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,3,5-Trimethylbenzene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,2-Dichloroethane (EDC)	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,2-Dibromoethane (EDB)	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Naphthalene	ND	0.00165		mg/Kg	1	10/17/2012 4:28:16 PM
1-Methylnaphthalene	ND	0.00331		mg/Kg	1	10/17/2012 4:28:16 PM
2-Methylnaphthalene	ND	0.00331		mg/Kg	1	10/17/2012 4:28:16 PM
Acetone	0.0464	0.00827		mg/Kg	1	10/17/2012 4:28:16 PM
Bromobenzene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Bromodichloromethane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Bromoform	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Bromomethane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
2-Butanone	ND	0.00827		mg/Kg	1	10/17/2012 4:28:16 PM
Carbon tetrachloride	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Chlorobenzene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Chloroethane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-10 (1.5-2')
Collection Date: 10/15/2012 11:30:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Chloromethane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
2-Chlorotoluene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Carbon disulfide	ND	0.00827		mg/Kg	1	10/17/2012 4:28:16 PM
4-Chlorotoluene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
cis-1,2-DCE	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
cis-1,3-Dichloropropene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,2-Dibromo-3-chloropropane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Dibromochloromethane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Dibromomethane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,2-Dichlorobenzene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,3-Dichlorobenzene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,4-Dichlorobenzene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Dichlorodifluoromethane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,1-Dichloroethane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,1-Dichloroethene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,2-Dichloropropane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,3-Dichloropropane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
2,2-Dichloropropane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,1-Dichloropropene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Hexachlorobutadiene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Isopropylbenzene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
4-Isopropyltoluene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Methylene chloride	ND	0.00248		mg/Kg	1	10/17/2012 4:28:16 PM
n-Butylbenzene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
2-Hexanone	ND	0.00827		mg/Kg	1	10/17/2012 4:28:16 PM
n-Propylbenzene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
sec-Butylbenzene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Styrene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
4-Methyl-2-pentanone	ND	0.00827		mg/Kg	1	10/17/2012 4:28:16 PM
tert-Butylbenzene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,1,1,2-Tetrachloroethane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,1,2,2-Tetrachloroethane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Tetrachloroethene (PCE)	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
trans-1,2-DCE	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
trans-1,3-Dichloropropene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,2,3-Trichlorobenzene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,2,4-Trichlorobenzene	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,1,1-Trichloroethane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
1,1,2-Trichloroethane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Trichloroethene (TCE)	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Trichlorofluoromethane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-10 (1.5-2')
Collection Date: 10/15/2012 11:30:00 AM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Vinyl chloride	ND	0.000827		mg/Kg	1	10/17/2012 4:28:16 PM
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	10/17/2012 4:28:16 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	10/17/2012 4:28:16 PM
Surr: Dibromofluoromethane	117	70-130		%REC	1	10/17/2012 4:28:16 PM
Surr: Toluene-d8	107	70-130		%REC	1	10/17/2012 4:28:16 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-11 (0-0.5')
Collection Date: 10/15/2012 12:05:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	87	9.8		mg/Kg	1	10/19/2012 9:02:58 AM
Motor Oil Range Organics (MRO)	86	49		mg/Kg	1	10/19/2012 9:02:58 AM
Surr: DNOP	103	77.6-140		%REC	1	10/19/2012 9:02:58 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	10		mg/Kg	2	10/23/2012 2:07:11 AM
Surr: BFB	89.6	84-116		%REC	2	10/23/2012 2:07:11 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.84	0.16		mg/kg	5	10/23/2012 8:00:33 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	11/2/2012 10:49:22 AM
Arsenic	ND	5.0		mg/Kg	2	11/2/2012 10:49:22 AM
Barium	510	2.0		mg/Kg	20	11/2/2012 3:50:46 PM
Beryllium	0.77	0.30		mg/Kg	2	11/2/2012 10:49:22 AM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 10:49:22 AM
Chromium	15	0.60		mg/Kg	2	11/2/2012 10:49:22 AM
Cobalt	5.4	0.60		mg/Kg	2	11/2/2012 10:49:22 AM
Iron	14000	500		mg/Kg	500	11/2/2012 4:02:06 PM
Lead	3.5	0.50		mg/Kg	2	11/2/2012 10:49:22 AM
Manganese	620	2.0		mg/Kg	20	11/2/2012 3:50:46 PM
Nickel	8.8	1.0		mg/Kg	2	11/2/2012 10:49:22 AM
Selenium	ND	5.0		mg/Kg	2	11/2/2012 10:49:22 AM
Silver	ND	0.50		mg/Kg	2	11/2/2012 10:49:22 AM
Vanadium	25	5.0		mg/Kg	2	11/2/2012 10:49:22 AM
Zinc	39	5.0		mg/Kg	2	11/2/2012 10:49:22 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Acenaphthylene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Aniline	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Anthracene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Azobenzene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Benzoic acid	ND	1.0		mg/Kg	1	10/22/2012 2:31:21 AM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-11 (0-0.5')
Collection Date: 10/15/2012 12:05:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/22/2012 2:31:21 AM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Carbazole	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/22/2012 2:31:21 AM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/22/2012 2:31:21 AM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/22/2012 2:31:21 AM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Chrysene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/22/2012 2:31:21 AM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/22/2012 2:31:21 AM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Dibenzofuran	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/22/2012 2:31:21 AM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/22/2012 2:31:21 AM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/22/2012 2:31:21 AM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/22/2012 2:31:21 AM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/22/2012 2:31:21 AM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/22/2012 2:31:21 AM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/22/2012 2:31:21 AM
Fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Fluorene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Hexachloroethane	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Isophorone	ND	1.0		mg/Kg	1	10/22/2012 2:31:21 AM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
2-Methylphenol	ND	1.0		mg/Kg	1	10/22/2012 2:31:21 AM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Naphthalene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-11 (0-0.5')
Collection Date: 10/15/2012 12:05:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/22/2012 2:31:21 AM
Nitrobenzene	ND	1.0		mg/Kg	1	10/22/2012 2:31:21 AM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/22/2012 2:31:21 AM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/22/2012 2:31:21 AM
Phenanthrene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Phenol	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Pyrene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Pyridine	ND	1.0		mg/Kg	1	10/22/2012 2:31:21 AM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 2:31:21 AM
Surr: 2,4,6-Tribromophenol	97.9	21.3-145		%REC	1	10/22/2012 2:31:21 AM
Surr: 2-Fluorobiphenyl	90.9	20-131		%REC	1	10/22/2012 2:31:21 AM
Surr: 2-Fluorophenol	81.9	11.9-130		%REC	1	10/22/2012 2:31:21 AM
Surr: 4-Terphenyl-d14	91.0	25.1-149		%REC	1	10/22/2012 2:31:21 AM
Surr: Nitrobenzene-d5	95.4	25.6-137		%REC	1	10/22/2012 2:31:21 AM
Surr: Phenol-d5	84.2	20.3-132		%REC	1	10/22/2012 2:31:21 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00207	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Toluene	0.00414	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Ethylbenzene	0.00933	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Xylenes, Total	0.0565	0.00195		mg/Kg	1	10/17/2012 4:59:03 PM
Methyl tert-butyl ether (MTBE)	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,2,4-Trimethylbenzene	0.00219	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,3,5-Trimethylbenzene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,2-Dichloroethane (EDC)	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,2-Dibromoethane (EDB)	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Naphthalene	ND	0.00195		mg/Kg	1	10/17/2012 4:59:03 PM
1-Methylnaphthalene	ND	0.00390		mg/Kg	1	10/17/2012 4:59:03 PM
2-Methylnaphthalene	ND	0.00390		mg/Kg	1	10/17/2012 4:59:03 PM
Acetone	0.329	0.00976	E	mg/Kg	1	10/17/2012 4:59:03 PM
Bromobenzene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Bromodichloromethane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Bromoform	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Bromomethane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
2-Butanone	0.0102	0.00976		mg/Kg	1	10/17/2012 4:59:03 PM
Carbon tetrachloride	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Chlorobenzene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Chloroethane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-11 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/15/2012 12:05:00 PM
Lab ID: 1210811-005
Matrix: SOIL
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Chloromethane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
2-Chlorotoluene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Carbon disulfide	ND	0.00976		mg/Kg	1	10/17/2012 4:59:03 PM
4-Chlorotoluene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
cis-1,2-DCE	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
cis-1,3-Dichloropropene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,2-Dibromo-3-chloropropane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Dibromochloromethane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Dibromomethane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,2-Dichlorobenzene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,3-Dichlorobenzene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,4-Dichlorobenzene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Dichlorodifluoromethane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,1-Dichloroethane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,1-Dichloroethene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,2-Dichloropropane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,3-Dichloropropane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
2,2-Dichloropropane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,1-Dichloropropene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Hexachlorobutadiene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Isopropylbenzene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
4-Isopropyltoluene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Methylene chloride	ND	0.00293		mg/Kg	1	10/17/2012 4:59:03 PM
n-Butylbenzene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
2-Hexanone	ND	0.00976		mg/Kg	1	10/17/2012 4:59:03 PM
n-Propylbenzene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
sec-Butylbenzene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Styrene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
4-Methyl-2-pentanone	ND	0.00976		mg/Kg	1	10/17/2012 4:59:03 PM
tert-Butylbenzene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,1,1,2-Tetrachloroethane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,1,2,2-Tetrachloroethane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Tetrachloroethene (PCE)	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
trans-1,2-DCE	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
trans-1,3-Dichloropropene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,2,3-Trichlorobenzene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,2,4-Trichlorobenzene	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,1,1-Trichloroethane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
1,1,2-Trichloroethane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Trichloroethene (TCE)	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Trichlorofluoromethane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-11 (0-0.5')
Collection Date: 10/15/2012 12:05:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Vinyl chloride	ND	0.000976		mg/Kg	1	10/17/2012 4:59:03 PM
Surr: 1,2-Dichloroethane-d4	95.2	70-130		%REC	1	10/17/2012 4:59:03 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	10/17/2012 4:59:03 PM
Surr: Dibromofluoromethane	113	70-130		%REC	1	10/17/2012 4:59:03 PM
Surr: Toluene-d8	99.1	70-130		%REC	1	10/17/2012 4:59:03 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-11 (1.5-2')
Collection Date: 10/15/2012 12:20:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	120	10		mg/Kg	1	10/19/2012 9:24:38 AM
Motor Oil Range Organics (MRO)	120	51		mg/Kg	1	10/19/2012 9:24:38 AM
Surr: DNOP	103	77.6-140		%REC	1	10/19/2012 9:24:38 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	10		mg/Kg	2	10/23/2012 2:35:56 AM
Surr: BFB	89.2	84-116		%REC	2	10/23/2012 2:35:56 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.19	0.033		mg/kg	1	10/23/2012 5:52:47 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	11/2/2012 11:00:53 AM
Arsenic	ND	5.0		mg/Kg	2	11/2/2012 11:00:53 AM
Barium	590	2.0		mg/Kg	20	11/2/2012 4:05:01 PM
Beryllium	0.61	0.30		mg/Kg	2	11/2/2012 11:00:53 AM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 11:00:53 AM
Chromium	12	0.60		mg/Kg	2	11/2/2012 11:00:53 AM
Cobalt	4.0	0.60		mg/Kg	2	11/2/2012 11:00:53 AM
Iron	7400	500		mg/Kg	500	11/2/2012 4:09:11 PM
Lead	1.4	0.50		mg/Kg	2	11/2/2012 11:00:53 AM
Manganese	400	2.0		mg/Kg	20	11/2/2012 4:05:01 PM
Nickel	7.1	1.0		mg/Kg	2	11/2/2012 11:00:53 AM
Selenium	ND	5.0		mg/Kg	2	11/2/2012 11:00:53 AM
Silver	ND	0.50		mg/Kg	2	11/2/2012 11:00:53 AM
Vanadium	18	5.0		mg/Kg	2	11/2/2012 11:00:53 AM
Zinc	44	5.0		mg/Kg	2	11/2/2012 11:00:53 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Acenaphthylene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Aniline	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Anthracene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Azobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Benzoic acid	ND	1.0		mg/Kg	1	10/22/2012 3:00:24 AM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-11 (1.5-2')
Collection Date: 10/15/2012 12:20:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/22/2012 3:00:24 AM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Carbazole	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/22/2012 3:00:24 AM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/22/2012 3:00:24 AM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/22/2012 3:00:24 AM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Chrysene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/22/2012 3:00:24 AM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/22/2012 3:00:24 AM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Dibenzofuran	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/22/2012 3:00:24 AM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/22/2012 3:00:24 AM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/22/2012 3:00:24 AM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/22/2012 3:00:24 AM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/22/2012 3:00:24 AM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/22/2012 3:00:24 AM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/22/2012 3:00:24 AM
Fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Fluorene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Hexachloroethane	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Isophorone	ND	1.0		mg/Kg	1	10/22/2012 3:00:24 AM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
2-Methylphenol	ND	1.0		mg/Kg	1	10/22/2012 3:00:24 AM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Naphthalene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-11 (1.5-2')
Collection Date: 10/15/2012 12:20:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/22/2012 3:00:24 AM
Nitrobenzene	ND	1.0		mg/Kg	1	10/22/2012 3:00:24 AM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/22/2012 3:00:24 AM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/22/2012 3:00:24 AM
Phenanthrene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Phenol	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Pyrene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Pyridine	ND	1.0		mg/Kg	1	10/22/2012 3:00:24 AM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 3:00:24 AM
Surr: 2,4,6-Tribromophenol	89.5	21.3-145		%REC	1	10/22/2012 3:00:24 AM
Surr: 2-Fluorobiphenyl	87.7	20-131		%REC	1	10/22/2012 3:00:24 AM
Surr: 2-Fluorophenol	82.9	11.9-130		%REC	1	10/22/2012 3:00:24 AM
Surr: 4-Terphenyl-d14	72.3	25.1-149		%REC	1	10/22/2012 3:00:24 AM
Surr: Nitrobenzene-d5	95.3	25.6-137		%REC	1	10/22/2012 3:00:24 AM
Surr: Phenol-d5	79.9	20.3-132		%REC	1	10/22/2012 3:00:24 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00131	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Toluene	0.00804	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Ethylbenzene	0.00229	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Xylenes, Total	0.00902	0.00153		mg/Kg	1	10/17/2012 5:29:46 PM
Methyl tert-butyl ether (MTBE)	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,2,4-Trimethylbenzene	0.00449	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,3,5-Trimethylbenzene	0.00165	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,2-Dichloroethane (EDC)	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,2-Dibromoethane (EDB)	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Naphthalene	ND	0.00153		mg/Kg	1	10/17/2012 5:29:46 PM
1-Methylnaphthalene	ND	0.00307		mg/Kg	1	10/17/2012 5:29:46 PM
2-Methylnaphthalene	ND	0.00307		mg/Kg	1	10/17/2012 5:29:46 PM
Acetone	0.0686	0.00767		mg/Kg	1	10/17/2012 5:29:46 PM
Bromobenzene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Bromodichloromethane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Bromoform	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Bromomethane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
2-Butanone	ND	0.00767		mg/Kg	1	10/17/2012 5:29:46 PM
Carbon tetrachloride	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Chlorobenzene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Chloroethane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-11 (1.5-2')
Collection Date: 10/15/2012 12:20:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Chloromethane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
2-Chlorotoluene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Carbon disulfide	ND	0.00767		mg/Kg	1	10/17/2012 5:29:46 PM
4-Chlorotoluene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
cis-1,2-DCE	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
cis-1,3-Dichloropropene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,2-Dibromo-3-chloropropane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Dibromochloromethane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Dibromomethane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,2-Dichlorobenzene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,3-Dichlorobenzene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,4-Dichlorobenzene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Dichlorodifluoromethane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,1-Dichloroethane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,1-Dichloroethene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,2-Dichloropropane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,3-Dichloropropane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
2,2-Dichloropropane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,1-Dichloropropene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Hexachlorobutadiene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Isopropylbenzene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
4-Isopropyltoluene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Methylene chloride	ND	0.00230		mg/Kg	1	10/17/2012 5:29:46 PM
n-Butylbenzene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
2-Hexanone	ND	0.00767		mg/Kg	1	10/17/2012 5:29:46 PM
n-Propylbenzene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
sec-Butylbenzene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Styrene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
4-Methyl-2-pentanone	ND	0.00767		mg/Kg	1	10/17/2012 5:29:46 PM
tert-Butylbenzene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,1,1,2-Tetrachloroethane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,1,2,2-Tetrachloroethane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Tetrachloroethene (PCE)	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
trans-1,2-DCE	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
trans-1,3-Dichloropropene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,2,3-Trichlorobenzene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,2,4-Trichlorobenzene	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,1,1-Trichloroethane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
1,1,2-Trichloroethane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Trichloroethene (TCE)	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Trichlorofluoromethane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-11 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/15/2012 12:20:00 PM
Lab ID: 1210811-006 **Matrix:** SOIL **Received Date:** 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Vinyl chloride	ND	0.000767		mg/Kg	1	10/17/2012 5:29:46 PM
Surr: 1,2-Dichloroethane-d4	94.9	70-130		%REC	1	10/17/2012 5:29:46 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	1	10/17/2012 5:29:46 PM
Surr: Dibromofluoromethane	115	70-130		%REC	1	10/17/2012 5:29:46 PM
Surr: Toluene-d8	111	70-130		%REC	1	10/17/2012 5:29:46 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-12 (0-0.5')
Collection Date: 10/15/2012 2:45:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	200	10		mg/Kg	1	10/19/2012 9:46:08 AM
Motor Oil Range Organics (MRO)	150	51		mg/Kg	1	10/19/2012 9:46:08 AM
Surr: DNOP	105	77.6-140		%REC	1	10/19/2012 9:46:08 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	10		mg/Kg	2	10/23/2012 3:04:40 AM
Surr: BFB	92.8	84-116		%REC	2	10/23/2012 3:04:40 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.16	0.033		mg/kg	1	10/23/2012 5:54:35 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	11/2/2012 11:03:20 AM
Arsenic	ND	5.0		mg/Kg	2	11/2/2012 11:03:20 AM
Barium	400	1.0		mg/Kg	10	11/2/2012 4:12:04 PM
Beryllium	0.95	0.30		mg/Kg	2	11/2/2012 11:03:20 AM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 11:03:20 AM
Chromium	15	0.60		mg/Kg	2	11/2/2012 11:03:20 AM
Cobalt	5.4	0.60		mg/Kg	2	11/2/2012 11:03:20 AM
Iron	15000	500		mg/Kg	500	11/2/2012 4:14:29 PM
Lead	1.6	0.50		mg/Kg	2	11/2/2012 11:03:20 AM
Manganese	390	1.0		mg/Kg	10	11/2/2012 4:12:04 PM
Nickel	9.9	1.0		mg/Kg	2	11/2/2012 11:03:20 AM
Selenium	ND	5.0		mg/Kg	2	11/2/2012 11:03:20 AM
Silver	ND	0.50		mg/Kg	2	11/2/2012 11:03:20 AM
Vanadium	24	5.0		mg/Kg	2	11/2/2012 11:03:20 AM
Zinc	61	5.0		mg/Kg	2	11/2/2012 11:03:20 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Acenaphthylene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Aniline	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Anthracene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Azobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Benzoic acid	ND	1.0		mg/Kg	1	10/22/2012 3:29:24 AM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-12 (0-0.5')
Collection Date: 10/15/2012 2:45:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/22/2012 3:29:24 AM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Carbazole	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/22/2012 3:29:24 AM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/22/2012 3:29:24 AM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/22/2012 3:29:24 AM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Chrysene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/22/2012 3:29:24 AM
Di-n-octyl phthalate	ND	0.81		mg/Kg	1	10/22/2012 3:29:24 AM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Dibenzofuran	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/22/2012 3:29:24 AM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
2,4-Dichlorophenol	ND	0.81		mg/Kg	1	10/22/2012 3:29:24 AM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/22/2012 3:29:24 AM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/22/2012 3:29:24 AM
2,4-Dinitrophenol	ND	0.81		mg/Kg	1	10/22/2012 3:29:24 AM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/22/2012 3:29:24 AM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/22/2012 3:29:24 AM
Fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Fluorene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Hexachloroethane	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Isophorone	ND	1.0		mg/Kg	1	10/22/2012 3:29:24 AM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
2-Methylphenol	ND	1.0		mg/Kg	1	10/22/2012 3:29:24 AM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Naphthalene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-12 (0-0.5')
Collection Date: 10/15/2012 2:45:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
4-Nitroaniline	ND	0.81		mg/Kg	1	10/22/2012 3:29:24 AM
Nitrobenzene	ND	1.0		mg/Kg	1	10/22/2012 3:29:24 AM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/22/2012 3:29:24 AM
Pentachlorophenol	ND	0.81		mg/Kg	1	10/22/2012 3:29:24 AM
Phenanthrene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Phenol	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Pyrene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Pyridine	ND	1.0		mg/Kg	1	10/22/2012 3:29:24 AM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 3:29:24 AM
Surr: 2,4,6-Tribromophenol	86.0	21.3-145		%REC	1	10/22/2012 3:29:24 AM
Surr: 2-Fluorobiphenyl	83.6	20-131		%REC	1	10/22/2012 3:29:24 AM
Surr: 2-Fluorophenol	79.7	11.9-130		%REC	1	10/22/2012 3:29:24 AM
Surr: 4-Terphenyl-d14	73.3	25.1-149		%REC	1	10/22/2012 3:29:24 AM
Surr: Nitrobenzene-d5	94.3	25.6-137		%REC	1	10/22/2012 3:29:24 AM
Surr: Phenol-d5	78.0	20.3-132		%REC	1	10/22/2012 3:29:24 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00232	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Toluene	0.00554	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Ethylbenzene	0.0233	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Xylenes, Total	0.186	0.00178		mg/Kg	1	10/17/2012 6:00:30 PM
Methyl tert-butyl ether (MTBE)	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,2,4-Trimethylbenzene	0.00394	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,3,5-Trimethylbenzene	0.00161	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,2-Dichloroethane (EDC)	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,2-Dibromoethane (EDB)	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Naphthalene	ND	0.00178		mg/Kg	1	10/17/2012 6:00:30 PM
1-Methylnaphthalene	ND	0.00357		mg/Kg	1	10/17/2012 6:00:30 PM
2-Methylnaphthalene	ND	0.00357		mg/Kg	1	10/17/2012 6:00:30 PM
Acetone	3.23	0.00892	E	mg/Kg	1	10/17/2012 6:00:30 PM
Bromobenzene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Bromodichloromethane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Bromoform	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Bromomethane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
2-Butanone	0.0132	0.00892		mg/Kg	1	10/17/2012 6:00:30 PM
Carbon tetrachloride	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Chlorobenzene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Chloroethane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-12 (0-0.5')
Collection Date: 10/15/2012 2:45:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Chloromethane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
2-Chlorotoluene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Carbon disulfide	ND	0.00892		mg/Kg	1	10/17/2012 6:00:30 PM
4-Chlorotoluene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
cis-1,2-DCE	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
cis-1,3-Dichloropropene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,2-Dibromo-3-chloropropane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Dibromochloromethane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Dibromomethane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,2-Dichlorobenzene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,3-Dichlorobenzene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,4-Dichlorobenzene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Dichlorodifluoromethane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,1-Dichloroethane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,1-Dichloroethene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,2-Dichloropropane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,3-Dichloropropane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
2,2-Dichloropropane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,1-Dichloropropene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Hexachlorobutadiene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Isopropylbenzene	0.00144	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
4-Isopropyltoluene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Methylene chloride	ND	0.00268		mg/Kg	1	10/17/2012 6:00:30 PM
n-Butylbenzene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
2-Hexanone	ND	0.00892		mg/Kg	1	10/17/2012 6:00:30 PM
n-Propylbenzene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
sec-Butylbenzene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Styrene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
4-Methyl-2-pentanone	ND	0.00892		mg/Kg	1	10/17/2012 6:00:30 PM
tert-Butylbenzene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,1,1,2-Tetrachloroethane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,1,2,2-Tetrachloroethane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Tetrachloroethene (PCE)	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
trans-1,2-DCE	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
trans-1,3-Dichloropropene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,2,3-Trichlorobenzene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,2,4-Trichlorobenzene	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,1,1-Trichloroethane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
1,1,2-Trichloroethane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Trichloroethene (TCE)	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Trichlorofluoromethane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-12 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/15/2012 2:45:00 PM
Lab ID: 1210811-007 **Matrix:** SOIL **Received Date:** 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Vinyl chloride	ND	0.000892		mg/Kg	1	10/17/2012 6:00:30 PM
Surr: 1,2-Dichloroethane-d4	94.4	70-130		%REC	1	10/17/2012 6:00:30 PM
Surr: 4-Bromofluorobenzene	99.8	70-130		%REC	1	10/17/2012 6:00:30 PM
Surr: Dibromofluoromethane	106	70-130		%REC	1	10/17/2012 6:00:30 PM
Surr: Toluene-d8	93.0	70-130		%REC	1	10/17/2012 6:00:30 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-12 (0.5-1')
Project: SWMU NO.1
Collection Date: 10/15/2012 3:00:00 PM
Lab ID: 1210811-008 **Matrix:** SOIL **Received Date:** 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	190	9.6		mg/Kg	1	10/19/2012 10:07:43 AM
Motor Oil Range Organics (MRO)	190	48		mg/Kg	1	10/19/2012 10:07:43 AM
Surr: DNOP	111	77.6-140		%REC	1	10/19/2012 10:07:43 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	10		mg/Kg	2	10/23/2012 3:33:26 AM
Surr: BFB	91.2	84-116		%REC	2	10/23/2012 3:33:26 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.12	0.033		mg/kg	1	10/23/2012 5:56:22 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	11/2/2012 11:05:49 AM
Arsenic	ND	5.0		mg/Kg	2	11/2/2012 11:05:49 AM
Barium	440	1.0		mg/Kg	10	11/2/2012 4:17:23 PM
Beryllium	0.76	0.30		mg/Kg	2	11/2/2012 11:05:49 AM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 11:05:49 AM
Chromium	14	0.60		mg/Kg	2	11/2/2012 11:05:49 AM
Cobalt	4.9	0.60		mg/Kg	2	11/2/2012 11:05:49 AM
Iron	13000	500		mg/Kg	500	11/2/2012 4:19:48 PM
Lead	1.6	0.50		mg/Kg	2	11/2/2012 11:05:49 AM
Manganese	460	1.0		mg/Kg	10	11/2/2012 4:17:23 PM
Nickel	8.0	1.0		mg/Kg	2	11/2/2012 11:05:49 AM
Selenium	ND	5.0		mg/Kg	2	11/2/2012 11:05:49 AM
Silver	ND	0.50		mg/Kg	2	11/2/2012 11:05:49 AM
Vanadium	24	5.0		mg/Kg	2	11/2/2012 11:05:49 AM
Zinc	40	5.0		mg/Kg	2	11/2/2012 11:05:49 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Acenaphthylene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Aniline	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Anthracene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Azobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Benzoic acid	ND	1.0		mg/Kg	1	10/22/2012 3:58:25 AM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-12 (0.5-1')
Collection Date: 10/15/2012 3:00:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/22/2012 3:58:25 AM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Carbazole	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/22/2012 3:58:25 AM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/22/2012 3:58:25 AM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/22/2012 3:58:25 AM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Chrysene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/22/2012 3:58:25 AM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/22/2012 3:58:25 AM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Dibenzofuran	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/22/2012 3:58:25 AM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/22/2012 3:58:25 AM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/22/2012 3:58:25 AM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/22/2012 3:58:25 AM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/22/2012 3:58:25 AM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/22/2012 3:58:25 AM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/22/2012 3:58:25 AM
Fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Fluorene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Hexachloroethane	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Isophorone	ND	1.0		mg/Kg	1	10/22/2012 3:58:25 AM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
2-Methylphenol	ND	1.0		mg/Kg	1	10/22/2012 3:58:25 AM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Naphthalene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-12 (0.5-1')
Collection Date: 10/15/2012 3:00:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/22/2012 3:58:25 AM
Nitrobenzene	ND	1.0		mg/Kg	1	10/22/2012 3:58:25 AM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/22/2012 3:58:25 AM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/22/2012 3:58:25 AM
Phenanthrene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Phenol	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Pyrene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Pyridine	ND	1.0		mg/Kg	1	10/22/2012 3:58:25 AM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 3:58:25 AM
Surr: 2,4,6-Tribromophenol	101	21.3-145		%REC	1	10/22/2012 3:58:25 AM
Surr: 2-Fluorobiphenyl	91.8	20-131		%REC	1	10/22/2012 3:58:25 AM
Surr: 2-Fluorophenol	81.6	11.9-130		%REC	1	10/22/2012 3:58:25 AM
Surr: 4-Terphenyl-d14	82.5	25.1-149		%REC	1	10/22/2012 3:58:25 AM
Surr: Nitrobenzene-d5	99.5	25.6-137		%REC	1	10/22/2012 3:58:25 AM
Surr: Phenol-d5	85.2	20.3-132		%REC	1	10/22/2012 3:58:25 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00191	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Toluene	0.00470	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Ethylbenzene	0.00131	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Xylenes, Total	0.00699	0.00146		mg/Kg	1	10/17/2012 7:02:10 PM
Methyl tert-butyl ether (MTBE)	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,2,4-Trimethylbenzene	0.00382	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,3,5-Trimethylbenzene	0.00149	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,2-Dichloroethane (EDC)	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,2-Dibromoethane (EDB)	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Naphthalene	ND	0.00146		mg/Kg	1	10/17/2012 7:02:10 PM
1-Methylnaphthalene	ND	0.00292		mg/Kg	1	10/17/2012 7:02:10 PM
2-Methylnaphthalene	ND	0.00292		mg/Kg	1	10/17/2012 7:02:10 PM
Acetone	0.0917	0.00729		mg/Kg	1	10/17/2012 7:02:10 PM
Bromobenzene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Bromodichloromethane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Bromoform	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Bromomethane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
2-Butanone	ND	0.00729		mg/Kg	1	10/17/2012 7:02:10 PM
Carbon tetrachloride	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Chlorobenzene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Chloroethane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-12 (0.5-1')
Collection Date: 10/15/2012 3:00:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Chloromethane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
2-Chlorotoluene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Carbon disulfide	ND	0.00729		mg/Kg	1	10/17/2012 7:02:10 PM
4-Chlorotoluene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
cis-1,2-DCE	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
cis-1,3-Dichloropropene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,2-Dibromo-3-chloropropane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Dibromochloromethane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Dibromomethane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,2-Dichlorobenzene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,3-Dichlorobenzene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,4-Dichlorobenzene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Dichlorodifluoromethane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,1-Dichloroethane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,1-Dichloroethene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,2-Dichloropropane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,3-Dichloropropane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
2,2-Dichloropropane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,1-Dichloropropene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Hexachlorobutadiene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Isopropylbenzene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
4-Isopropyltoluene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Methylene chloride	ND	0.00219		mg/Kg	1	10/17/2012 7:02:10 PM
n-Butylbenzene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
2-Hexanone	ND	0.00729		mg/Kg	1	10/17/2012 7:02:10 PM
n-Propylbenzene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
sec-Butylbenzene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Styrene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
4-Methyl-2-pentanone	ND	0.00729		mg/Kg	1	10/17/2012 7:02:10 PM
tert-Butylbenzene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,1,1,2-Tetrachloroethane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,1,2,2-Tetrachloroethane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Tetrachloroethene (PCE)	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
trans-1,2-DCE	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
trans-1,3-Dichloropropene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,2,3-Trichlorobenzene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,2,4-Trichlorobenzene	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,1,1-Trichloroethane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
1,1,2-Trichloroethane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Trichloroethene (TCE)	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Trichlorofluoromethane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-008 **Matrix:** SOIL

Client Sample ID: SWMU 1-12 (0.5-1')
Collection Date: 10/15/2012 3:00:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Vinyl chloride	ND	0.000729		mg/Kg	1	10/17/2012 7:02:10 PM
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%REC	1	10/17/2012 7:02:10 PM
Surr: 4-Bromofluorobenzene	120	70-130		%REC	1	10/17/2012 7:02:10 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	10/17/2012 7:02:10 PM
Surr: Toluene-d8	88.3	70-130		%REC	1	10/17/2012 7:02:10 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-14 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/15/2012 3:30:00 PM
Lab ID: 1210811-009 **Matrix:** SOIL **Received Date:** 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	58	9.8		mg/Kg	1	10/19/2012 8:19:39 AM
Motor Oil Range Organics (MRO)	94	49		mg/Kg	1	10/19/2012 8:19:39 AM
Surr: DNOP	102	77.6-140		%REC	1	10/19/2012 8:19:39 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/23/2012 4:02:08 AM
Surr: BFB	91.2	84-116		%REC	1	10/23/2012 4:02:08 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.050	0.033		mg/kg	1	10/23/2012 6:01:43 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	11/2/2012 11:08:19 AM
Arsenic	ND	5.0		mg/Kg	2	11/2/2012 11:08:19 AM
Barium	530	2.0		mg/Kg	20	11/2/2012 4:25:06 PM
Beryllium	1.0	0.30		mg/Kg	2	11/2/2012 11:08:19 AM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 11:08:19 AM
Chromium	11	0.60		mg/Kg	2	11/2/2012 11:08:19 AM
Cobalt	5.4	0.60		mg/Kg	2	11/2/2012 11:08:19 AM
Iron	14000	500		mg/Kg	500	11/2/2012 4:27:31 PM
Lead	1.9	0.50		mg/Kg	2	11/2/2012 11:08:19 AM
Manganese	300	1.0		mg/Kg	10	11/2/2012 4:22:41 PM
Nickel	8.9	1.0		mg/Kg	2	11/2/2012 11:08:19 AM
Selenium	ND	5.0		mg/Kg	2	11/2/2012 11:08:19 AM
Silver	ND	0.50		mg/Kg	2	11/2/2012 11:08:19 AM
Vanadium	20	5.0		mg/Kg	2	11/2/2012 11:08:19 AM
Zinc	33	5.0		mg/Kg	2	11/2/2012 11:08:19 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Acenaphthylene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Aniline	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Anthracene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Azobenzene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Benzoic acid	ND	1.0		mg/Kg	1	10/22/2012 4:27:35 AM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-14 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/15/2012 3:30:00 PM
Lab ID: 1210811-009
Matrix: SOIL
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	1.5	1.0		mg/Kg	1	10/22/2012 4:27:35 AM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Carbazole	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/22/2012 4:27:35 AM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/22/2012 4:27:35 AM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/22/2012 4:27:35 AM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Chrysene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/22/2012 4:27:35 AM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/22/2012 4:27:35 AM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Dibenzofuran	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/22/2012 4:27:35 AM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/22/2012 4:27:35 AM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/22/2012 4:27:35 AM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/22/2012 4:27:35 AM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/22/2012 4:27:35 AM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/22/2012 4:27:35 AM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/22/2012 4:27:35 AM
Fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Fluorene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Hexachloroethane	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Isophorone	ND	1.0		mg/Kg	1	10/22/2012 4:27:35 AM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
2-Methylphenol	ND	1.0		mg/Kg	1	10/22/2012 4:27:35 AM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Naphthalene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-009 **Matrix:** SOIL

Client Sample ID: SWMU 1-14 (0-0.5')
Collection Date: 10/15/2012 3:30:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/22/2012 4:27:35 AM
Nitrobenzene	ND	1.0		mg/Kg	1	10/22/2012 4:27:35 AM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/22/2012 4:27:35 AM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/22/2012 4:27:35 AM
Phenanthrene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Phenol	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Pyrene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Pyridine	ND	1.0		mg/Kg	1	10/22/2012 4:27:35 AM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 4:27:35 AM
Surr: 2,4,6-Tribromophenol	93.5	21.3-145		%REC	1	10/22/2012 4:27:35 AM
Surr: 2-Fluorobiphenyl	91.4	20-131		%REC	1	10/22/2012 4:27:35 AM
Surr: 2-Fluorophenol	86.9	11.9-130		%REC	1	10/22/2012 4:27:35 AM
Surr: 4-Terphenyl-d14	92.8	25.1-149		%REC	1	10/22/2012 4:27:35 AM
Surr: Nitrobenzene-d5	102	25.6-137		%REC	1	10/22/2012 4:27:35 AM
Surr: Phenol-d5	88.1	20.3-132		%REC	1	10/22/2012 4:27:35 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00171	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Toluene	0.00574	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Ethylbenzene	0.00165	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Xylenes, Total	0.00542	0.00149		mg/Kg	1	10/17/2012 7:32:57 PM
Methyl tert-butyl ether (MTBE)	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,2,4-Trimethylbenzene	0.00194	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,3,5-Trimethylbenzene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,2-Dichloroethane (EDC)	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,2-Dibromoethane (EDB)	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Naphthalene	ND	0.00149		mg/Kg	1	10/17/2012 7:32:57 PM
1-Methylnaphthalene	ND	0.00298		mg/Kg	1	10/17/2012 7:32:57 PM
2-Methylnaphthalene	ND	0.00298		mg/Kg	1	10/17/2012 7:32:57 PM
Acetone	0.0471	0.00745		mg/Kg	1	10/17/2012 7:32:57 PM
Bromobenzene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Bromodichloromethane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Bromoform	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Bromomethane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
2-Butanone	ND	0.00745		mg/Kg	1	10/17/2012 7:32:57 PM
Carbon tetrachloride	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Chlorobenzene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Chloroethane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-009 **Matrix:** SOIL

Client Sample ID: SWMU 1-14 (0-0.5')
Collection Date: 10/15/2012 3:30:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Chloromethane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
2-Chlorotoluene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Carbon disulfide	ND	0.00745		mg/Kg	1	10/17/2012 7:32:57 PM
4-Chlorotoluene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
cis-1,2-DCE	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
cis-1,3-Dichloropropene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,2-Dibromo-3-chloropropane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Dibromochloromethane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Dibromomethane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,2-Dichlorobenzene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,3-Dichlorobenzene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,4-Dichlorobenzene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Dichlorodifluoromethane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,1-Dichloroethane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,1-Dichloroethene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,2-Dichloropropane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,3-Dichloropropane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
2,2-Dichloropropane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,1-Dichloropropene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Hexachlorobutadiene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Isopropylbenzene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
4-Isopropyltoluene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Methylene chloride	ND	0.00223		mg/Kg	1	10/17/2012 7:32:57 PM
n-Butylbenzene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
2-Hexanone	ND	0.00745		mg/Kg	1	10/17/2012 7:32:57 PM
n-Propylbenzene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
sec-Butylbenzene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Styrene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
4-Methyl-2-pentanone	ND	0.00745		mg/Kg	1	10/17/2012 7:32:57 PM
tert-Butylbenzene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,1,1,2-Tetrachloroethane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,1,2,2-Tetrachloroethane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Tetrachloroethene (PCE)	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
trans-1,2-DCE	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
trans-1,3-Dichloropropene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,2,3-Trichlorobenzene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,2,4-Trichlorobenzene	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,1,1-Trichloroethane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
1,1,2-Trichloroethane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Trichloroethene (TCE)	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Trichlorofluoromethane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-009 **Matrix:** SOIL

Client Sample ID: SWMU 1-14 (0-0.5')
Collection Date: 10/15/2012 3:30:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Vinyl chloride	ND	0.000745		mg/Kg	1	10/17/2012 7:32:57 PM
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	10/17/2012 7:32:57 PM
Surr: 4-Bromofluorobenzene	85.9	70-130		%REC	1	10/17/2012 7:32:57 PM
Surr: Dibromofluoromethane	117	70-130		%REC	1	10/17/2012 7:32:57 PM
Surr: Toluene-d8	106	70-130		%REC	1	10/17/2012 7:32:57 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-010 **Matrix:** SOIL

Client Sample ID: SWMU 1-14 (1.5-2')
Collection Date: 10/15/2012 3:55:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/18/2012 11:42:59 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/18/2012 11:42:59 AM
Surr: DNOP	95.9	77.6-140		%REC	1	10/18/2012 11:42:59 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/23/2012 4:59:28 AM
Surr: BFB	91.9	84-116		%REC	1	10/23/2012 4:59:28 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 6:03:36 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	13		mg/Kg	5	11/2/2012 4:43:30 PM
Arsenic	ND	13		mg/Kg	5	11/2/2012 4:43:30 PM
Barium	360	2.0		mg/Kg	20	11/2/2012 4:45:54 PM
Beryllium	0.75	0.75		mg/Kg	5	11/2/2012 4:43:30 PM
Cadmium	ND	0.50		mg/Kg	5	11/2/2012 4:43:30 PM
Chromium	11	1.5		mg/Kg	5	11/2/2012 4:43:30 PM
Cobalt	4.4	1.5		mg/Kg	5	11/2/2012 4:43:30 PM
Iron	13000	500		mg/Kg	500	11/2/2012 4:48:20 PM
Lead	4.1	1.3		mg/Kg	5	11/2/2012 4:43:30 PM
Manganese	430	2.0		mg/Kg	20	11/2/2012 4:45:54 PM
Nickel	7.6	2.5		mg/Kg	5	11/2/2012 4:43:30 PM
Selenium	ND	13		mg/Kg	5	11/2/2012 4:43:30 PM
Silver	ND	1.3		mg/Kg	5	11/2/2012 4:43:30 PM
Vanadium	19	13		mg/Kg	5	11/2/2012 4:43:30 PM
Zinc	16	13		mg/Kg	5	11/2/2012 4:43:30 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Aniline	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Anthracene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Azobenzene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/22/2012 4:56:48 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-010 **Matrix:** SOIL

Client Sample ID: SWMU 1-14 (1.5-2')
Collection Date: 10/15/2012 3:55:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/22/2012 4:56:48 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Carbazole	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/22/2012 4:56:48 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/22/2012 4:56:48 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/22/2012 4:56:48 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Chrysene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/22/2012 4:56:48 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 4:56:48 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/22/2012 4:56:48 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 4:56:48 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/22/2012 4:56:48 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/22/2012 4:56:48 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/22/2012 4:56:48 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/22/2012 4:56:48 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/22/2012 4:56:48 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Fluorene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Isophorone	ND	0.50		mg/Kg	1	10/22/2012 4:56:48 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/22/2012 4:56:48 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Naphthalene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-010 **Matrix:** SOIL

Client Sample ID: SWMU 1-14 (1.5-2')
Collection Date: 10/15/2012 3:55:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 4:56:48 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/22/2012 4:56:48 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/22/2012 4:56:48 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/22/2012 4:56:48 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Phenol	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Pyrene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Pyridine	ND	0.50		mg/Kg	1	10/22/2012 4:56:48 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/22/2012 4:56:48 AM
Surr: 2,4,6-Tribromophenol	88.5	21.3-145		%REC	1	10/22/2012 4:56:48 AM
Surr: 2-Fluorobiphenyl	90.7	20-131		%REC	1	10/22/2012 4:56:48 AM
Surr: 2-Fluorophenol	82.6	11.9-130		%REC	1	10/22/2012 4:56:48 AM
Surr: 4-Terphenyl-d14	74.6	25.1-149		%REC	1	10/22/2012 4:56:48 AM
Surr: Nitrobenzene-d5	97.6	25.6-137		%REC	1	10/22/2012 4:56:48 AM
Surr: Phenol-d5	89.2	20.3-132		%REC	1	10/22/2012 4:56:48 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Toluene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Ethylbenzene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Xylenes, Total	ND	0.00179		mg/Kg	1	10/17/2012 8:03:39 PM
Methyl tert-butyl ether (MTBE)	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,2,4-Trimethylbenzene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,3,5-Trimethylbenzene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,2-Dichloroethane (EDC)	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,2-Dibromoethane (EDB)	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Naphthalene	ND	0.00179		mg/Kg	1	10/17/2012 8:03:39 PM
1-Methylnaphthalene	ND	0.00357		mg/Kg	1	10/17/2012 8:03:39 PM
2-Methylnaphthalene	ND	0.00357		mg/Kg	1	10/17/2012 8:03:39 PM
Acetone	0.0202	0.00893		mg/Kg	1	10/17/2012 8:03:39 PM
Bromobenzene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Bromodichloromethane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Bromoform	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Bromomethane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
2-Butanone	ND	0.00893		mg/Kg	1	10/17/2012 8:03:39 PM
Carbon tetrachloride	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Chlorobenzene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Chloroethane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-010 **Matrix:** SOIL

Client Sample ID: SWMU 1-14 (1.5-2')
Collection Date: 10/15/2012 3:55:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Chloromethane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
2-Chlorotoluene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Carbon disulfide	ND	0.00893		mg/Kg	1	10/17/2012 8:03:39 PM
4-Chlorotoluene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
cis-1,2-DCE	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
cis-1,3-Dichloropropene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,2-Dibromo-3-chloropropane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Dibromochloromethane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Dibromomethane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,2-Dichlorobenzene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,3-Dichlorobenzene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,4-Dichlorobenzene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Dichlorodifluoromethane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,1-Dichloroethane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,1-Dichloroethene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,2-Dichloropropane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,3-Dichloropropane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
2,2-Dichloropropane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,1-Dichloropropene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Hexachlorobutadiene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Isopropylbenzene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
4-Isopropyltoluene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Methylene chloride	ND	0.00268		mg/Kg	1	10/17/2012 8:03:39 PM
n-Butylbenzene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
2-Hexanone	ND	0.00893		mg/Kg	1	10/17/2012 8:03:39 PM
n-Propylbenzene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
sec-Butylbenzene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Styrene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
4-Methyl-2-pentanone	ND	0.00893		mg/Kg	1	10/17/2012 8:03:39 PM
tert-Butylbenzene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,1,1,2-Tetrachloroethane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,1,2,2-Tetrachloroethane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Tetrachloroethene (PCE)	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
trans-1,2-DCE	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
trans-1,3-Dichloropropene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,2,3-Trichlorobenzene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,2,4-Trichlorobenzene	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,1,1-Trichloroethane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
1,1,2-Trichloroethane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Trichloroethene (TCE)	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Trichlorofluoromethane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-010 **Matrix:** SOIL

Client Sample ID: SWMU 1-14 (1.5-2')
Collection Date: 10/15/2012 3:55:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Vinyl chloride	ND	0.000893		mg/Kg	1	10/17/2012 8:03:39 PM
Surr: 1,2-Dichloroethane-d4	96.9	70-130		%REC	1	10/17/2012 8:03:39 PM
Surr: 4-Bromofluorobenzene	84.0	70-130		%REC	1	10/17/2012 8:03:39 PM
Surr: Dibromofluoromethane	109	70-130		%REC	1	10/17/2012 8:03:39 PM
Surr: Toluene-d8	104	70-130		%REC	1	10/17/2012 8:03:39 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-011 **Matrix:** SOIL

Client Sample ID: SWMU 1-14 (1.5-2') DUP
Collection Date: 10/15/2012 3:55:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/18/2012 12:07:39 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/18/2012 12:07:39 PM
Surr: DNOP	99.2	77.6-140		%REC	1	10/18/2012 12:07:39 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/24/2012 3:56:01 PM
Surr: BFB	88.0	84-116		%REC	1	10/24/2012 3:56:01 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 6:05:24 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	11/2/2012 11:15:00 AM
Arsenic	ND	5.0		mg/Kg	2	11/2/2012 11:15:00 AM
Barium	240	1.0		mg/Kg	10	11/2/2012 4:51:10 PM
Beryllium	0.81	0.30		mg/Kg	2	11/2/2012 11:15:00 AM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 11:15:00 AM
Chromium	11	0.60		mg/Kg	2	11/2/2012 11:15:00 AM
Cobalt	5.0	0.60		mg/Kg	2	11/2/2012 11:15:00 AM
Iron	15000	500		mg/Kg	500	11/2/2012 4:53:33 PM
Lead	1.0	0.50		mg/Kg	2	11/2/2012 11:15:00 AM
Manganese	350	1.0		mg/Kg	10	11/2/2012 4:51:10 PM
Nickel	8.3	1.0		mg/Kg	2	11/2/2012 11:15:00 AM
Selenium	ND	5.0		mg/Kg	2	11/2/2012 11:15:00 AM
Silver	ND	0.50		mg/Kg	2	11/2/2012 11:15:00 AM
Vanadium	28	5.0		mg/Kg	2	11/2/2012 11:15:00 AM
Zinc	21	5.0		mg/Kg	2	11/2/2012 11:15:00 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Aniline	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Anthracene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Azobenzene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/22/2012 5:25:56 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-14 (1.5-2') DUP
Project: SWMU NO.1
Collection Date: 10/15/2012 3:55:00 PM
Lab ID: 1210811-011 **Matrix:** SOIL **Received Date:** 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/22/2012 5:25:56 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Carbazole	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/22/2012 5:25:56 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/22/2012 5:25:56 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/22/2012 5:25:56 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Chrysene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/22/2012 5:25:56 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 5:25:56 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/22/2012 5:25:56 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 5:25:56 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/22/2012 5:25:56 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/22/2012 5:25:56 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/22/2012 5:25:56 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/22/2012 5:25:56 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/22/2012 5:25:56 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Fluorene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Isophorone	ND	0.50		mg/Kg	1	10/22/2012 5:25:56 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/22/2012 5:25:56 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Naphthalene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-011 **Matrix:** SOIL

Client Sample ID: SWMU 1-14 (1.5-2') DUP
Collection Date: 10/15/2012 3:55:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 5:25:56 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/22/2012 5:25:56 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/22/2012 5:25:56 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/22/2012 5:25:56 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Phenol	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Pyrene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Pyridine	ND	0.50		mg/Kg	1	10/22/2012 5:25:56 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/22/2012 5:25:56 AM
Surr: 2,4,6-Tribromophenol	87.0	21.3-145		%REC	1	10/22/2012 5:25:56 AM
Surr: 2-Fluorobiphenyl	89.9	20-131		%REC	1	10/22/2012 5:25:56 AM
Surr: 2-Fluorophenol	83.0	11.9-130		%REC	1	10/22/2012 5:25:56 AM
Surr: 4-Terphenyl-d14	82.7	25.1-149		%REC	1	10/22/2012 5:25:56 AM
Surr: Nitrobenzene-d5	98.6	25.6-137		%REC	1	10/22/2012 5:25:56 AM
Surr: Phenol-d5	86.9	20.3-132		%REC	1	10/22/2012 5:25:56 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Toluene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Ethylbenzene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Xylenes, Total	ND	0.00171		mg/Kg	1	10/17/2012 8:34:21 PM
Methyl tert-butyl ether (MTBE)	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,2,4-Trimethylbenzene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,3,5-Trimethylbenzene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,2-Dichloroethane (EDC)	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,2-Dibromoethane (EDB)	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Naphthalene	ND	0.00171		mg/Kg	1	10/17/2012 8:34:21 PM
1-Methylnaphthalene	ND	0.00342		mg/Kg	1	10/17/2012 8:34:21 PM
2-Methylnaphthalene	ND	0.00342		mg/Kg	1	10/17/2012 8:34:21 PM
Acetone	0.0139	0.00854		mg/Kg	1	10/17/2012 8:34:21 PM
Bromobenzene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Bromodichloromethane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Bromoform	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Bromomethane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
2-Butanone	ND	0.00854		mg/Kg	1	10/17/2012 8:34:21 PM
Carbon tetrachloride	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Chlorobenzene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Chloroethane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-011 **Matrix:** SOIL

Client Sample ID: SWMU 1-14 (1.5-2') DUP
Collection Date: 10/15/2012 3:55:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Chloromethane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
2-Chlorotoluene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Carbon disulfide	ND	0.00854		mg/Kg	1	10/17/2012 8:34:21 PM
4-Chlorotoluene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
cis-1,2-DCE	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
cis-1,3-Dichloropropene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,2-Dibromo-3-chloropropane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Dibromochloromethane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Dibromomethane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,2-Dichlorobenzene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,3-Dichlorobenzene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,4-Dichlorobenzene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Dichlorodifluoromethane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,1-Dichloroethane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,1-Dichloroethene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,2-Dichloropropane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,3-Dichloropropane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
2,2-Dichloropropane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,1-Dichloropropene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Hexachlorobutadiene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Isopropylbenzene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
4-Isopropyltoluene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Methylene chloride	ND	0.00256		mg/Kg	1	10/17/2012 8:34:21 PM
n-Butylbenzene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
2-Hexanone	ND	0.00854		mg/Kg	1	10/17/2012 8:34:21 PM
n-Propylbenzene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
sec-Butylbenzene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Styrene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
4-Methyl-2-pentanone	ND	0.00854		mg/Kg	1	10/17/2012 8:34:21 PM
tert-Butylbenzene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,1,1,2-Tetrachloroethane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,1,2,2-Tetrachloroethane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Tetrachloroethene (PCE)	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
trans-1,2-DCE	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
trans-1,3-Dichloropropene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,2,3-Trichlorobenzene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,2,4-Trichlorobenzene	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,1,1-Trichloroethane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
1,1,2-Trichloroethane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Trichloroethene (TCE)	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Trichlorofluoromethane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-14 (1.5-2') DUP
Project: SWMU NO.1
Collection Date: 10/15/2012 3:55:00 PM
Lab ID: 1210811-011 **Matrix:** SOIL **Received Date:** 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Vinyl chloride	ND	0.000854		mg/Kg	1	10/17/2012 8:34:21 PM
Surr: 1,2-Dichloroethane-d4	96.5	70-130		%REC	1	10/17/2012 8:34:21 PM
Surr: 4-Bromofluorobenzene	88.9	70-130		%REC	1	10/17/2012 8:34:21 PM
Surr: Dibromofluoromethane	103	70-130		%REC	1	10/17/2012 8:34:21 PM
Surr: Toluene-d8	80.8	70-130		%REC	1	10/17/2012 8:34:21 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-15 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/15/2012 4:20:00 PM
Lab ID: 1210811-012 **Matrix:** SOIL **Received Date:** 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/18/2012 11:23:15 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/18/2012 11:23:15 AM
Surr: DNOP	97.5	77.6-140		%REC	1	10/18/2012 11:23:15 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/24/2012 4:24:48 PM
Surr: BFB	87.7	84-116		%REC	1	10/24/2012 4:24:48 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 6:07:10 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	13		mg/Kg	5	11/2/2012 4:56:27 PM
Arsenic	ND	13		mg/Kg	5	11/2/2012 4:56:27 PM
Barium	360	2.0		mg/Kg	20	11/2/2012 4:58:52 PM
Beryllium	0.75	0.75		mg/Kg	5	11/2/2012 4:56:27 PM
Cadmium	ND	0.50		mg/Kg	5	11/2/2012 4:56:27 PM
Chromium	10	1.5		mg/Kg	5	11/2/2012 4:56:27 PM
Cobalt	4.4	1.5		mg/Kg	5	11/2/2012 4:56:27 PM
Iron	13000	500		mg/Kg	500	11/2/2012 5:01:17 PM
Lead	3.1	1.3		mg/Kg	5	11/2/2012 4:56:27 PM
Manganese	350	2.0		mg/Kg	20	11/2/2012 4:58:52 PM
Nickel	7.6	2.5		mg/Kg	5	11/2/2012 4:56:27 PM
Selenium	ND	13		mg/Kg	5	11/2/2012 4:56:27 PM
Silver	ND	1.3		mg/Kg	5	11/2/2012 4:56:27 PM
Vanadium	19	13		mg/Kg	5	11/2/2012 4:56:27 PM
Zinc	18	13		mg/Kg	5	11/2/2012 4:56:27 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Aniline	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Anthracene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Azobenzene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/22/2012 5:54:58 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-15 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/15/2012 4:20:00 PM
Lab ID: 1210811-012 **Matrix:** SOIL **Received Date:** 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/22/2012 5:54:58 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Carbazole	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/22/2012 5:54:58 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/22/2012 5:54:58 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/22/2012 5:54:58 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Chrysene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/22/2012 5:54:58 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 5:54:58 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/22/2012 5:54:58 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 5:54:58 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/22/2012 5:54:58 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/22/2012 5:54:58 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/22/2012 5:54:58 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/22/2012 5:54:58 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/22/2012 5:54:58 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Fluorene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Isophorone	ND	0.50		mg/Kg	1	10/22/2012 5:54:58 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/22/2012 5:54:58 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Naphthalene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-012 **Matrix:** SOIL

Client Sample ID: SWMU 1-15 (0-0.5')
Collection Date: 10/15/2012 4:20:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 5:54:58 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/22/2012 5:54:58 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/22/2012 5:54:58 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/22/2012 5:54:58 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Phenol	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Pyrene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Pyridine	ND	0.50		mg/Kg	1	10/22/2012 5:54:58 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/22/2012 5:54:58 AM
Surr: 2,4,6-Tribromophenol	82.7	21.3-145		%REC	1	10/22/2012 5:54:58 AM
Surr: 2-Fluorobiphenyl	93.6	20-131		%REC	1	10/22/2012 5:54:58 AM
Surr: 2-Fluorophenol	74.2	11.9-130		%REC	1	10/22/2012 5:54:58 AM
Surr: 4-Terphenyl-d14	81.0	25.1-149		%REC	1	10/22/2012 5:54:58 AM
Surr: Nitrobenzene-d5	96.8	25.6-137		%REC	1	10/22/2012 5:54:58 AM
Surr: Phenol-d5	79.4	20.3-132		%REC	1	10/22/2012 5:54:58 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00192	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Toluene	0.00151	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Ethylbenzene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Xylenes, Total	0.00254	0.00146		mg/Kg	1	10/17/2012 9:05:05 PM
Methyl tert-butyl ether (MTBE)	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,2,4-Trimethylbenzene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,3,5-Trimethylbenzene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,2-Dichloroethane (EDC)	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,2-Dibromoethane (EDB)	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Naphthalene	ND	0.00146		mg/Kg	1	10/17/2012 9:05:05 PM
1-Methylnaphthalene	ND	0.00292		mg/Kg	1	10/17/2012 9:05:05 PM
2-Methylnaphthalene	ND	0.00292		mg/Kg	1	10/17/2012 9:05:05 PM
Acetone	0.0754	0.00730		mg/Kg	1	10/17/2012 9:05:05 PM
Bromobenzene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Bromodichloromethane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Bromoform	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Bromomethane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
2-Butanone	ND	0.00730		mg/Kg	1	10/17/2012 9:05:05 PM
Carbon tetrachloride	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Chlorobenzene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Chloroethane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-012 **Matrix:** SOIL

Client Sample ID: SWMU 1-15 (0-0.5')
Collection Date: 10/15/2012 4:20:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Chloromethane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
2-Chlorotoluene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Carbon disulfide	ND	0.00730		mg/Kg	1	10/17/2012 9:05:05 PM
4-Chlorotoluene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
cis-1,2-DCE	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
cis-1,3-Dichloropropene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,2-Dibromo-3-chloropropane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Dibromochloromethane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Dibromomethane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,2-Dichlorobenzene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,3-Dichlorobenzene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,4-Dichlorobenzene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Dichlorodifluoromethane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,1-Dichloroethane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,1-Dichloroethene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,2-Dichloropropane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,3-Dichloropropane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
2,2-Dichloropropane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,1-Dichloropropene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Hexachlorobutadiene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Isopropylbenzene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
4-Isopropyltoluene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Methylene chloride	ND	0.00219		mg/Kg	1	10/17/2012 9:05:05 PM
n-Butylbenzene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
2-Hexanone	ND	0.00730		mg/Kg	1	10/17/2012 9:05:05 PM
n-Propylbenzene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
sec-Butylbenzene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Styrene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
4-Methyl-2-pentanone	ND	0.00730		mg/Kg	1	10/17/2012 9:05:05 PM
tert-Butylbenzene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,1,1,2-Tetrachloroethane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,1,2,2-Tetrachloroethane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Tetrachloroethene (PCE)	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
trans-1,2-DCE	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
trans-1,3-Dichloropropene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,2,3-Trichlorobenzene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,2,4-Trichlorobenzene	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,1,1-Trichloroethane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
1,1,2-Trichloroethane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Trichloroethene (TCE)	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Trichlorofluoromethane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-15 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/15/2012 4:20:00 PM
Lab ID: 1210811-012
Matrix: SOIL
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Vinyl chloride	ND	0.000730		mg/Kg	1	10/17/2012 9:05:05 PM
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	10/17/2012 9:05:05 PM
Surr: 4-Bromofluorobenzene	90.2	70-130		%REC	1	10/17/2012 9:05:05 PM
Surr: Dibromofluoromethane	112	70-130		%REC	1	10/17/2012 9:05:05 PM
Surr: Toluene-d8	86.6	70-130		%REC	1	10/17/2012 9:05:05 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-013 **Matrix:** SOIL

Client Sample ID: SWMU 1-15 (1.5-2')
Collection Date: 10/15/2012 4:30:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/18/2012 12:32:30 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/18/2012 12:32:30 PM
Surr: DNOP	94.3	77.6-140		%REC	1	10/18/2012 12:32:30 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/24/2012 4:53:34 PM
Surr: BFB	87.1	84-116		%REC	1	10/24/2012 4:53:34 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 6:08:57 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	11/2/2012 11:19:59 AM
Arsenic	ND	5.0		mg/Kg	2	11/2/2012 11:19:59 AM
Barium	240	1.0		mg/Kg	10	11/2/2012 5:04:08 PM
Beryllium	0.79	0.30		mg/Kg	2	11/2/2012 11:19:59 AM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 11:19:59 AM
Chromium	11	0.60		mg/Kg	2	11/2/2012 11:19:59 AM
Cobalt	5.3	0.60		mg/Kg	2	11/2/2012 11:19:59 AM
Iron	12000	500		mg/Kg	500	11/6/2012 11:53:57 AM
Lead	1.4	0.50		mg/Kg	2	11/2/2012 11:19:59 AM
Manganese	400	1.0		mg/Kg	10	11/2/2012 5:04:08 PM
Nickel	8.3	1.0		mg/Kg	2	11/2/2012 11:19:59 AM
Selenium	ND	5.0		mg/Kg	2	11/2/2012 11:19:59 AM
Silver	ND	0.50		mg/Kg	2	11/2/2012 11:19:59 AM
Vanadium	22	5.0		mg/Kg	2	11/2/2012 11:19:59 AM
Zinc	21	5.0		mg/Kg	2	11/2/2012 11:19:59 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Aniline	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Anthracene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Azobenzene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/22/2012 6:23:55 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-15 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/15/2012 4:30:00 PM
Lab ID: 1210811-013 **Matrix:** SOIL **Received Date:** 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/22/2012 6:23:55 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Carbazole	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/22/2012 6:23:55 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/22/2012 6:23:55 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/22/2012 6:23:55 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Chrysene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/22/2012 6:23:55 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 6:23:55 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/22/2012 6:23:55 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 6:23:55 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/22/2012 6:23:55 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/22/2012 6:23:55 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/22/2012 6:23:55 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/22/2012 6:23:55 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/22/2012 6:23:55 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Fluorene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Isophorone	ND	0.50		mg/Kg	1	10/22/2012 6:23:55 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/22/2012 6:23:55 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Naphthalene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-013 **Matrix:** SOIL

Client Sample ID: SWMU 1-15 (1.5-2')
Collection Date: 10/15/2012 4:30:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 6:23:55 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/22/2012 6:23:55 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/22/2012 6:23:55 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/22/2012 6:23:55 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Phenol	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Pyrene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Pyridine	ND	0.50		mg/Kg	1	10/22/2012 6:23:55 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/22/2012 6:23:55 AM
Surr: 2,4,6-Tribromophenol	97.1	21.3-145		%REC	1	10/22/2012 6:23:55 AM
Surr: 2-Fluorobiphenyl	93.0	20-131		%REC	1	10/22/2012 6:23:55 AM
Surr: 2-Fluorophenol	81.8	11.9-130		%REC	1	10/22/2012 6:23:55 AM
Surr: 4-Terphenyl-d14	80.3	25.1-149		%REC	1	10/22/2012 6:23:55 AM
Surr: Nitrobenzene-d5	97.2	25.6-137		%REC	1	10/22/2012 6:23:55 AM
Surr: Phenol-d5	84.7	20.3-132		%REC	1	10/22/2012 6:23:55 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Toluene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Ethylbenzene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Xylenes, Total	ND	0.00144		mg/Kg	1	10/17/2012 9:35:46 PM
Methyl tert-butyl ether (MTBE)	0.00147	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,2,4-Trimethylbenzene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,3,5-Trimethylbenzene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,2-Dichloroethane (EDC)	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,2-Dibromoethane (EDB)	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Naphthalene	ND	0.00144		mg/Kg	1	10/17/2012 9:35:46 PM
1-Methylnaphthalene	ND	0.00288		mg/Kg	1	10/17/2012 9:35:46 PM
2-Methylnaphthalene	ND	0.00288		mg/Kg	1	10/17/2012 9:35:46 PM
Acetone	0.0328	0.00721		mg/Kg	1	10/17/2012 9:35:46 PM
Bromobenzene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Bromodichloromethane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Bromoform	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Bromomethane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
2-Butanone	ND	0.00721		mg/Kg	1	10/17/2012 9:35:46 PM
Carbon tetrachloride	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Chlorobenzene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Chloroethane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-15 (1.5-2')
Project: SWMU NO.1
Collection Date: 10/15/2012 4:30:00 PM
Lab ID: 1210811-013
Matrix: SOIL
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Chloromethane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
2-Chlorotoluene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Carbon disulfide	ND	0.00721		mg/Kg	1	10/17/2012 9:35:46 PM
4-Chlorotoluene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
cis-1,2-DCE	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
cis-1,3-Dichloropropene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,2-Dibromo-3-chloropropane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Dibromochloromethane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Dibromomethane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,2-Dichlorobenzene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,3-Dichlorobenzene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,4-Dichlorobenzene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Dichlorodifluoromethane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,1-Dichloroethane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,1-Dichloroethene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,2-Dichloropropane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,3-Dichloropropane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
2,2-Dichloropropane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,1-Dichloropropene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Hexachlorobutadiene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Isopropylbenzene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
4-Isopropyltoluene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Methylene chloride	ND	0.00216		mg/Kg	1	10/17/2012 9:35:46 PM
n-Butylbenzene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
2-Hexanone	ND	0.00721		mg/Kg	1	10/17/2012 9:35:46 PM
n-Propylbenzene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
sec-Butylbenzene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Styrene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
4-Methyl-2-pentanone	ND	0.00721		mg/Kg	1	10/17/2012 9:35:46 PM
tert-Butylbenzene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,1,1,2-Tetrachloroethane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,1,2,2-Tetrachloroethane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Tetrachloroethene (PCE)	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
trans-1,2-DCE	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
trans-1,3-Dichloropropene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,2,3-Trichlorobenzene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,2,4-Trichlorobenzene	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,1,1-Trichloroethane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
1,1,2-Trichloroethane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Trichloroethene (TCE)	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Trichlorofluoromethane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Analytical Report
Lab Order **1210811**
Date Reported: **11/28/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-013 **Matrix:** SOIL

Client Sample ID: SWMU 1-15 (1.5-2')
Collection Date: 10/15/2012 4:30:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Vinyl chloride	ND	0.000721		mg/Kg	1	10/17/2012 9:35:46 PM
Surr: 1,2-Dichloroethane-d4	97.9	70-130		%REC	1	10/17/2012 9:35:46 PM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	1	10/17/2012 9:35:46 PM
Surr: Dibromofluoromethane	109	70-130		%REC	1	10/17/2012 9:35:46 PM
Surr: Toluene-d8	94.9	70-130		%REC	1	10/17/2012 9:35:46 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-014 **Matrix:** SOIL

Client Sample ID: SWMU 1-16 (0-0.5')
Collection Date: 10/15/2012 4:55:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/18/2012 2:11:51 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/18/2012 2:11:51 PM
Surr: DNOP	94.8	77.6-140		%REC	1	10/18/2012 2:11:51 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/24/2012 5:22:13 PM
Surr: BFB	87.6	84-116		%REC	1	10/24/2012 5:22:13 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 6:10:44 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	11/2/2012 11:22:28 AM
Arsenic	ND	5.0		mg/Kg	2	11/2/2012 11:22:28 AM
Barium	640	2.0		mg/Kg	20	11/2/2012 5:19:54 PM
Beryllium	0.46	0.30		mg/Kg	2	11/2/2012 11:22:28 AM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 11:22:28 AM
Chromium	3.9	0.60		mg/Kg	2	11/2/2012 11:22:28 AM
Cobalt	3.0	0.60		mg/Kg	2	11/2/2012 11:22:28 AM
Iron	3400	500		mg/Kg	500	11/6/2012 11:56:51 AM
Lead	ND	0.50		mg/Kg	2	11/2/2012 11:22:28 AM
Manganese	330	2.0		mg/Kg	20	11/2/2012 5:19:54 PM
Nickel	4.6	1.0		mg/Kg	2	11/2/2012 11:22:28 AM
Selenium	ND	5.0		mg/Kg	2	11/2/2012 11:22:28 AM
Silver	ND	0.50		mg/Kg	2	11/2/2012 11:22:28 AM
Vanadium	14	5.0		mg/Kg	2	11/2/2012 11:22:28 AM
Zinc	14	5.0		mg/Kg	2	11/2/2012 11:22:28 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Acenaphthylene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Aniline	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Anthracene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Azobenzene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Benzoic acid	ND	1.0		mg/Kg	1	10/22/2012 6:52:45 AM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-014 **Matrix:** SOIL

Client Sample ID: SWMU 1-16 (0-0.5')
Collection Date: 10/15/2012 4:55:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/22/2012 6:52:45 AM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Carbazole	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/22/2012 6:52:45 AM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/22/2012 6:52:45 AM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/22/2012 6:52:45 AM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Chrysene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/22/2012 6:52:45 AM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/22/2012 6:52:45 AM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Dibenzofuran	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/22/2012 6:52:45 AM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/22/2012 6:52:45 AM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/22/2012 6:52:45 AM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/22/2012 6:52:45 AM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/22/2012 6:52:45 AM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/22/2012 6:52:45 AM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/22/2012 6:52:45 AM
Fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Fluorene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Hexachloroethane	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Isophorone	ND	1.0		mg/Kg	1	10/22/2012 6:52:45 AM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
2-Methylphenol	ND	1.0		mg/Kg	1	10/22/2012 6:52:45 AM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Naphthalene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-014 **Matrix:** SOIL

Client Sample ID: SWMU 1-16 (0-0.5')
Collection Date: 10/15/2012 4:55:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/22/2012 6:52:45 AM
Nitrobenzene	ND	1.0		mg/Kg	1	10/22/2012 6:52:45 AM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/22/2012 6:52:45 AM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/22/2012 6:52:45 AM
Phenanthrene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Phenol	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Pyrene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Pyridine	ND	1.0		mg/Kg	1	10/22/2012 6:52:45 AM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 6:52:45 AM
Surr: 2,4,6-Tribromophenol	66.1	21.3-145		%REC	1	10/22/2012 6:52:45 AM
Surr: 2-Fluorobiphenyl	74.1	20-131		%REC	1	10/22/2012 6:52:45 AM
Surr: 2-Fluorophenol	58.3	11.9-130		%REC	1	10/22/2012 6:52:45 AM
Surr: 4-Terphenyl-d14	69.2	25.1-149		%REC	1	10/22/2012 6:52:45 AM
Surr: Nitrobenzene-d5	74.4	25.6-137		%REC	1	10/22/2012 6:52:45 AM
Surr: Phenol-d5	65.1	20.3-132		%REC	1	10/22/2012 6:52:45 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00134	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Toluene	0.00712	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Ethylbenzene	0.00282	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Xylenes, Total	0.0130	0.00157		mg/Kg	1	10/17/2012 10:06:30 PM
Methyl tert-butyl ether (MTBE)	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,2,4-Trimethylbenzene	0.00423	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,3,5-Trimethylbenzene	0.00176	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,2-Dichloroethane (EDC)	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,2-Dibromoethane (EDB)	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Naphthalene	ND	0.00157		mg/Kg	1	10/17/2012 10:06:30 PM
1-Methylnaphthalene	ND	0.00314		mg/Kg	1	10/17/2012 10:06:30 PM
2-Methylnaphthalene	ND	0.00314		mg/Kg	1	10/17/2012 10:06:30 PM
Acetone	0.0845	0.00785		mg/Kg	1	10/17/2012 10:06:30 PM
Bromobenzene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Bromodichloromethane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Bromoform	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Bromomethane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
2-Butanone	ND	0.00785		mg/Kg	1	10/17/2012 10:06:30 PM
Carbon tetrachloride	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Chlorobenzene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Chloroethane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-014 **Matrix:** SOIL

Client Sample ID: SWMU 1-16 (0-0.5')
Collection Date: 10/15/2012 4:55:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Chloromethane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
2-Chlorotoluene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Carbon disulfide	ND	0.00785		mg/Kg	1	10/17/2012 10:06:30 PM
4-Chlorotoluene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
cis-1,2-DCE	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
cis-1,3-Dichloropropene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,2-Dibromo-3-chloropropane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Dibromochloromethane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Dibromomethane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,2-Dichlorobenzene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,3-Dichlorobenzene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,4-Dichlorobenzene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Dichlorodifluoromethane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,1-Dichloroethane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,1-Dichloroethene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,2-Dichloropropane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,3-Dichloropropane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
2,2-Dichloropropane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,1-Dichloropropene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Hexachlorobutadiene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Isopropylbenzene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
4-Isopropyltoluene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Methylene chloride	ND	0.00236		mg/Kg	1	10/17/2012 10:06:30 PM
n-Butylbenzene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
2-Hexanone	ND	0.00785		mg/Kg	1	10/17/2012 10:06:30 PM
n-Propylbenzene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
sec-Butylbenzene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Styrene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
4-Methyl-2-pentanone	ND	0.00785		mg/Kg	1	10/17/2012 10:06:30 PM
tert-Butylbenzene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,1,1,2-Tetrachloroethane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,1,2,2-Tetrachloroethane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Tetrachloroethene (PCE)	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
trans-1,2-DCE	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
trans-1,3-Dichloropropene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,2,3-Trichlorobenzene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,2,4-Trichlorobenzene	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,1,1-Trichloroethane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
1,1,2-Trichloroethane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Trichloroethene (TCE)	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Trichlorofluoromethane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-014 **Matrix:** SOIL

Client Sample ID: SWMU 1-16 (0-0.5')
Collection Date: 10/15/2012 4:55:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Vinyl chloride	ND	0.000785		mg/Kg	1	10/17/2012 10:06:30 PM
Surr: 1,2-Dichloroethane-d4	93.6	70-130		%REC	1	10/17/2012 10:06:30 PM
Surr: 4-Bromofluorobenzene	93.7	70-130		%REC	1	10/17/2012 10:06:30 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	10/17/2012 10:06:30 PM
Surr: Toluene-d8	91.8	70-130		%REC	1	10/17/2012 10:06:30 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-015 **Matrix:** SOIL

Client Sample ID: SWMU 1-16 (1.5-2')
Collection Date: 10/15/2012 5:05:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/19/2012 8:41:24 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/19/2012 8:41:24 AM
Surr: DNOP	101	77.6-140		%REC	1	10/19/2012 8:41:24 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/24/2012 5:50:52 PM
Surr: BFB	89.9	84-116		%REC	1	10/24/2012 5:50:52 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.033	0.033		mg/kg	1	10/23/2012 6:23:10 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	11/6/2012 11:59:37 AM
Arsenic	ND	12		mg/Kg	5	11/6/2012 11:59:37 AM
Barium	290	2.0		mg/Kg	20	11/2/2012 5:27:35 PM
Beryllium	ND	0.75		mg/Kg	5	11/2/2012 5:25:09 PM
Cadmium	ND	0.50		mg/Kg	5	11/2/2012 5:25:09 PM
Chromium	9.9	1.5		mg/Kg	5	11/2/2012 5:25:09 PM
Cobalt	4.2	1.5		mg/Kg	5	11/2/2012 5:25:09 PM
Iron	12000	500		mg/Kg	500	11/6/2012 12:02:39 PM
Lead	4.2	1.2		mg/Kg	5	11/2/2012 5:25:09 PM
Manganese	790	2.0		mg/Kg	20	11/2/2012 5:27:35 PM
Nickel	7.2	2.5		mg/Kg	5	11/2/2012 5:25:09 PM
Selenium	ND	12		mg/Kg	5	11/2/2012 5:25:09 PM
Silver	ND	1.2		mg/Kg	5	11/2/2012 5:25:09 PM
Vanadium	18	12		mg/Kg	5	11/2/2012 5:25:09 PM
Zinc	17	12		mg/Kg	5	11/6/2012 11:59:37 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Acenaphthylene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Aniline	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Anthracene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Azobenzene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Benzoic acid	ND	1.0		mg/Kg	1	10/22/2012 7:21:36 AM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-015 **Matrix:** SOIL

Client Sample ID: SWMU 1-16 (1.5-2')
Collection Date: 10/15/2012 5:05:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/22/2012 7:21:36 AM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Carbazole	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/22/2012 7:21:36 AM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/22/2012 7:21:36 AM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/22/2012 7:21:36 AM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Chrysene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/22/2012 7:21:36 AM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/22/2012 7:21:36 AM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Dibenzofuran	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/22/2012 7:21:36 AM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/22/2012 7:21:36 AM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/22/2012 7:21:36 AM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/22/2012 7:21:36 AM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/22/2012 7:21:36 AM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/22/2012 7:21:36 AM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/22/2012 7:21:36 AM
Fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Fluorene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Hexachloroethane	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Isophorone	ND	1.0		mg/Kg	1	10/22/2012 7:21:36 AM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
2-Methylphenol	ND	1.0		mg/Kg	1	10/22/2012 7:21:36 AM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Naphthalene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-015 **Matrix:** SOIL

Client Sample ID: SWMU 1-16 (1.5-2')
Collection Date: 10/15/2012 5:05:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/22/2012 7:21:36 AM
Nitrobenzene	ND	1.0		mg/Kg	1	10/22/2012 7:21:36 AM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/22/2012 7:21:36 AM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/22/2012 7:21:36 AM
Phenanthrene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Phenol	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Pyrene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Pyridine	ND	1.0		mg/Kg	1	10/22/2012 7:21:36 AM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 7:21:36 AM
Surr: 2,4,6-Tribromophenol	84.9	21.3-145		%REC	1	10/22/2012 7:21:36 AM
Surr: 2-Fluorobiphenyl	93.5	20-131		%REC	1	10/22/2012 7:21:36 AM
Surr: 2-Fluorophenol	89.6	11.9-130		%REC	1	10/22/2012 7:21:36 AM
Surr: 4-Terphenyl-d14	85.1	25.1-149		%REC	1	10/22/2012 7:21:36 AM
Surr: Nitrobenzene-d5	101	25.6-137		%REC	1	10/22/2012 7:21:36 AM
Surr: Phenol-d5	89.6	20.3-132		%REC	1	10/22/2012 7:21:36 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00166	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Toluene	0.00157	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Ethylbenzene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Xylenes, Total	ND	0.00149		mg/Kg	1	10/17/2012 10:37:20 PM
Methyl tert-butyl ether (MTBE)	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,2,4-Trimethylbenzene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,3,5-Trimethylbenzene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,2-Dichloroethane (EDC)	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,2-Dibromoethane (EDB)	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Naphthalene	ND	0.00149		mg/Kg	1	10/17/2012 10:37:20 PM
1-Methylnaphthalene	ND	0.00297		mg/Kg	1	10/17/2012 10:37:20 PM
2-Methylnaphthalene	ND	0.00297		mg/Kg	1	10/17/2012 10:37:20 PM
Acetone	0.0282	0.00743		mg/Kg	1	10/17/2012 10:37:20 PM
Bromobenzene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Bromodichloromethane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Bromoform	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Bromomethane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
2-Butanone	ND	0.00743		mg/Kg	1	10/17/2012 10:37:20 PM
Carbon tetrachloride	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Chlorobenzene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Chloroethane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-015 **Matrix:** SOIL

Client Sample ID: SWMU 1-16 (1.5-2')
Collection Date: 10/15/2012 5:05:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Chloromethane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
2-Chlorotoluene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Carbon disulfide	ND	0.00743		mg/Kg	1	10/17/2012 10:37:20 PM
4-Chlorotoluene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
cis-1,2-DCE	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
cis-1,3-Dichloropropene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,2-Dibromo-3-chloropropane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Dibromochloromethane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Dibromomethane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,2-Dichlorobenzene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,3-Dichlorobenzene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,4-Dichlorobenzene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Dichlorodifluoromethane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,1-Dichloroethane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,1-Dichloroethene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,2-Dichloropropane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,3-Dichloropropane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
2,2-Dichloropropane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,1-Dichloropropene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Hexachlorobutadiene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Isopropylbenzene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
4-Isopropyltoluene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Methylene chloride	ND	0.00223		mg/Kg	1	10/17/2012 10:37:20 PM
n-Butylbenzene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
2-Hexanone	ND	0.00743		mg/Kg	1	10/17/2012 10:37:20 PM
n-Propylbenzene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
sec-Butylbenzene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Styrene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
4-Methyl-2-pentanone	ND	0.00743		mg/Kg	1	10/17/2012 10:37:20 PM
tert-Butylbenzene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,1,1,2-Tetrachloroethane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,1,2,2-Tetrachloroethane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Tetrachloroethene (PCE)	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
trans-1,2-DCE	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
trans-1,3-Dichloropropene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,2,3-Trichlorobenzene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,2,4-Trichlorobenzene	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,1,1-Trichloroethane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
1,1,2-Trichloroethane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Trichloroethene (TCE)	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Trichlorofluoromethane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-015 **Matrix:** SOIL

Client Sample ID: SWMU 1-16 (1.5-2')
Collection Date: 10/15/2012 5:05:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Vinyl chloride	ND	0.000743		mg/Kg	1	10/17/2012 10:37:20 PM
Surr: 1,2-Dichloroethane-d4	93.8	70-130		%REC	1	10/17/2012 10:37:20 PM
Surr: 4-Bromofluorobenzene	97.8	70-130		%REC	1	10/17/2012 10:37:20 PM
Surr: Dibromofluoromethane	101	70-130		%REC	1	10/17/2012 10:37:20 PM
Surr: Toluene-d8	97.5	70-130		%REC	1	10/17/2012 10:37:20 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-016 **Matrix:** SOIL

Client Sample ID: SWMU 1-17 (0-0.5')
Collection Date: 10/15/2012 5:30:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/18/2012 2:37:02 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/18/2012 2:37:02 PM
Surr: DNOP	93.7	77.6-140		%REC	1	10/18/2012 2:37:02 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/24/2012 6:19:44 PM
Surr: BFB	90.2	84-116		%REC	1	10/24/2012 6:19:44 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 6:24:57 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	5.0		mg/Kg	2	11/27/2012 10:08:12 AM
Arsenic	ND	5.0		mg/Kg	2	11/27/2012 10:08:12 AM
Barium	500	2.0		mg/Kg	20	11/2/2012 5:40:07 PM
Beryllium	0.67	0.30		mg/Kg	2	11/2/2012 11:37:29 AM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 11:37:29 AM
Chromium	6.6	0.60		mg/Kg	2	11/2/2012 11:37:29 AM
Cobalt	4.1	0.60		mg/Kg	2	11/2/2012 11:37:29 AM
Iron	8200	500		mg/Kg	500	11/6/2012 2:17:39 PM
Lead	0.82	0.50		mg/Kg	2	11/2/2012 11:37:29 AM
Manganese	360	2.0		mg/Kg	20	11/2/2012 5:40:07 PM
Nickel	6.4	1.0		mg/Kg	2	11/2/2012 11:37:29 AM
Selenium	ND	5.0		mg/Kg	2	11/27/2012 10:08:12 AM
Silver	ND	0.50		mg/Kg	2	11/2/2012 11:37:29 AM
Vanadium	19	5.0		mg/Kg	2	11/2/2012 11:37:29 AM
Zinc	15	5.0		mg/Kg	2	11/2/2012 11:37:29 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Acenaphthylene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Aniline	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Anthracene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Azobenzene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Benzoic acid	ND	1.0		mg/Kg	1	10/22/2012 7:50:26 AM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-016 **Matrix:** SOIL

Client Sample ID: SWMU 1-17 (0-0.5')
Collection Date: 10/15/2012 5:30:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/22/2012 7:50:26 AM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Carbazole	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/22/2012 7:50:26 AM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/22/2012 7:50:26 AM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/22/2012 7:50:26 AM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Chrysene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/22/2012 7:50:26 AM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/22/2012 7:50:26 AM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Dibenzofuran	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/22/2012 7:50:26 AM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/22/2012 7:50:26 AM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/22/2012 7:50:26 AM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/22/2012 7:50:26 AM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/22/2012 7:50:26 AM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/22/2012 7:50:26 AM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/22/2012 7:50:26 AM
Fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Fluorene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Hexachloroethane	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Isophorone	ND	1.0		mg/Kg	1	10/22/2012 7:50:26 AM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
2-Methylphenol	ND	1.0		mg/Kg	1	10/22/2012 7:50:26 AM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Naphthalene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-17 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/15/2012 5:30:00 PM
Lab ID: 1210811-016 **Matrix:** SOIL **Received Date:** 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/22/2012 7:50:26 AM
Nitrobenzene	ND	1.0		mg/Kg	1	10/22/2012 7:50:26 AM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/22/2012 7:50:26 AM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/22/2012 7:50:26 AM
Phenanthrene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Phenol	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Pyrene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Pyridine	ND	1.0		mg/Kg	1	10/22/2012 7:50:26 AM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 7:50:26 AM
Surr: 2,4,6-Tribromophenol	91.6	21.3-145		%REC	1	10/22/2012 7:50:26 AM
Surr: 2-Fluorobiphenyl	96.7	20-131		%REC	1	10/22/2012 7:50:26 AM
Surr: 2-Fluorophenol	87.5	11.9-130		%REC	1	10/22/2012 7:50:26 AM
Surr: 4-Terphenyl-d14	87.9	25.1-149		%REC	1	10/22/2012 7:50:26 AM
Surr: Nitrobenzene-d5	98.8	25.6-137		%REC	1	10/22/2012 7:50:26 AM
Surr: Phenol-d5	88.9	20.3-132		%REC	1	10/22/2012 7:50:26 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00129	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Toluene	0.00708	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Ethylbenzene	0.00362	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Xylenes, Total	0.0234	0.00150		mg/Kg	1	10/17/2012 11:08:05 PM
Methyl tert-butyl ether (MTBE)	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,2,4-Trimethylbenzene	0.00424	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,3,5-Trimethylbenzene	0.00164	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,2-Dichloroethane (EDC)	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,2-Dibromoethane (EDB)	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Naphthalene	ND	0.00150		mg/Kg	1	10/17/2012 11:08:05 PM
1-Methylnaphthalene	ND	0.00301		mg/Kg	1	10/17/2012 11:08:05 PM
2-Methylnaphthalene	ND	0.00301		mg/Kg	1	10/17/2012 11:08:05 PM
Acetone	0.377	0.00752	E	mg/Kg	1	10/17/2012 11:08:05 PM
Bromobenzene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Bromodichloromethane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Bromoform	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Bromomethane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
2-Butanone	ND	0.00752		mg/Kg	1	10/17/2012 11:08:05 PM
Carbon tetrachloride	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Chlorobenzene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Chloroethane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-016 **Matrix:** SOIL

Client Sample ID: SWMU 1-17 (0-0.5')
Collection Date: 10/15/2012 5:30:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Chloromethane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
2-Chlorotoluene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Carbon disulfide	ND	0.00752		mg/Kg	1	10/17/2012 11:08:05 PM
4-Chlorotoluene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
cis-1,2-DCE	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
cis-1,3-Dichloropropene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,2-Dibromo-3-chloropropane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Dibromochloromethane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Dibromomethane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,2-Dichlorobenzene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,3-Dichlorobenzene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,4-Dichlorobenzene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Dichlorodifluoromethane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,1-Dichloroethane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,1-Dichloroethene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,2-Dichloropropane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,3-Dichloropropane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
2,2-Dichloropropane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,1-Dichloropropene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Hexachlorobutadiene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Isopropylbenzene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
4-Isopropyltoluene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Methylene chloride	ND	0.00226		mg/Kg	1	10/17/2012 11:08:05 PM
n-Butylbenzene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
2-Hexanone	ND	0.00752		mg/Kg	1	10/17/2012 11:08:05 PM
n-Propylbenzene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
sec-Butylbenzene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Styrene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
4-Methyl-2-pentanone	ND	0.00752		mg/Kg	1	10/17/2012 11:08:05 PM
tert-Butylbenzene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,1,1,2-Tetrachloroethane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,1,2,2-Tetrachloroethane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Tetrachloroethene (PCE)	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
trans-1,2-DCE	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
trans-1,3-Dichloropropene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,2,3-Trichlorobenzene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,2,4-Trichlorobenzene	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,1,1-Trichloroethane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
1,1,2-Trichloroethane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Trichloroethene (TCE)	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Trichlorofluoromethane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-016 **Matrix:** SOIL

Client Sample ID: SWMU 1-17 (0-0.5')
Collection Date: 10/15/2012 5:30:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Vinyl chloride	ND	0.000752		mg/Kg	1	10/17/2012 11:08:05 PM
Surr: 1,2-Dichloroethane-d4	88.7	70-130		%REC	1	10/17/2012 11:08:05 PM
Surr: 4-Bromofluorobenzene	92.0	70-130		%REC	1	10/17/2012 11:08:05 PM
Surr: Dibromofluoromethane	105	70-130		%REC	1	10/17/2012 11:08:05 PM
Surr: Toluene-d8	91.5	70-130		%REC	1	10/17/2012 11:08:05 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-017 **Matrix:** SOIL

Client Sample ID: SWMU 1-17 (1-1.5')
Collection Date: 10/15/2012 5:40:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	10/18/2012 3:02:26 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/18/2012 3:02:26 PM
Surr: DNOP	96.0	77.6-140		%REC	1	10/18/2012 3:02:26 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/24/2012 6:48:35 PM
Surr: BFB	88.8	84-116		%REC	1	10/24/2012 6:48:35 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 6:26:46 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	11/6/2012 12:24:33 PM
Arsenic	ND	5.0		mg/Kg	2	11/6/2012 2:00:22 PM
Barium	310	2.0		mg/Kg	20	11/2/2012 6:05:26 PM
Beryllium	0.78	0.30		mg/Kg	2	11/2/2012 6:02:58 PM
Cadmium	ND	0.20		mg/Kg	2	11/2/2012 6:02:58 PM
Chromium	8.8	0.60		mg/Kg	2	11/2/2012 6:02:58 PM
Cobalt	4.1	0.60		mg/Kg	2	11/2/2012 6:02:58 PM
Iron	11000	500		mg/Kg	500	11/6/2012 2:20:27 PM
Lead	3.5	0.50		mg/Kg	2	11/2/2012 6:02:58 PM
Manganese	340	2.0		mg/Kg	20	11/2/2012 6:05:26 PM
Nickel	7.2	1.0		mg/Kg	2	11/2/2012 6:02:58 PM
Selenium	ND	5.0		mg/Kg	2	11/2/2012 6:02:58 PM
Silver	ND	0.50		mg/Kg	2	11/13/2012 5:30:19 AM
Vanadium	13	5.0		mg/Kg	2	11/2/2012 6:02:58 PM
Zinc	15	5.0		mg/Kg	2	11/6/2012 12:24:33 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Acenaphthylene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Aniline	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Anthracene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Azobenzene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Benzoic acid	ND	0.99		mg/Kg	1	10/22/2012 8:19:31 AM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-017 **Matrix:** SOIL

Client Sample ID: SWMU 1-17 (1-1.5')
Collection Date: 10/15/2012 5:40:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.99		mg/Kg	1	10/22/2012 8:19:31 AM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Carbazole	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
4-Chloro-3-methylphenol	ND	0.99		mg/Kg	1	10/22/2012 8:19:31 AM
4-Chloroaniline	ND	0.99		mg/Kg	1	10/22/2012 8:19:31 AM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/22/2012 8:19:31 AM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Chrysene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Di-n-butyl phthalate	ND	0.99		mg/Kg	1	10/22/2012 8:19:31 AM
Di-n-octyl phthalate	ND	0.79		mg/Kg	1	10/22/2012 8:19:31 AM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Dibenzofuran	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/22/2012 8:19:31 AM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
2,4-Dichlorophenol	ND	0.79		mg/Kg	1	10/22/2012 8:19:31 AM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/22/2012 8:19:31 AM
4,6-Dinitro-2-methylphenol	ND	0.99		mg/Kg	1	10/22/2012 8:19:31 AM
2,4-Dinitrophenol	ND	0.79		mg/Kg	1	10/22/2012 8:19:31 AM
2,4-Dinitrotoluene	ND	0.99		mg/Kg	1	10/22/2012 8:19:31 AM
2,6-Dinitrotoluene	ND	0.99		mg/Kg	1	10/22/2012 8:19:31 AM
Fluoranthene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Fluorene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Hexachloroethane	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Isophorone	ND	0.99		mg/Kg	1	10/22/2012 8:19:31 AM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
2-Methylphenol	ND	0.99		mg/Kg	1	10/22/2012 8:19:31 AM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Naphthalene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-017 **Matrix:** SOIL

Client Sample ID: SWMU 1-17 (1-1.5')
Collection Date: 10/15/2012 5:40:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
4-Nitroaniline	ND	0.79		mg/Kg	1	10/22/2012 8:19:31 AM
Nitrobenzene	ND	0.99		mg/Kg	1	10/22/2012 8:19:31 AM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/22/2012 8:19:31 AM
Pentachlorophenol	ND	0.79		mg/Kg	1	10/22/2012 8:19:31 AM
Phenanthrene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Phenol	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Pyrene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Pyridine	ND	0.99		mg/Kg	1	10/22/2012 8:19:31 AM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/22/2012 8:19:31 AM
Surr: 2,4,6-Tribromophenol	84.8	21.3-145		%REC	1	10/22/2012 8:19:31 AM
Surr: 2-Fluorobiphenyl	83.4	20-131		%REC	1	10/22/2012 8:19:31 AM
Surr: 2-Fluorophenol	82.3	11.9-130		%REC	1	10/22/2012 8:19:31 AM
Surr: 4-Terphenyl-d14	85.4	25.1-149		%REC	1	10/22/2012 8:19:31 AM
Surr: Nitrobenzene-d5	93.3	25.6-137		%REC	1	10/22/2012 8:19:31 AM
Surr: Phenol-d5	80.4	20.3-132		%REC	1	10/22/2012 8:19:31 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00269	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Toluene	0.00185	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Ethylbenzene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Xylenes, Total	ND	0.00167		mg/Kg	1	10/17/2012 11:38:49 PM
Methyl tert-butyl ether (MTBE)	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,2,4-Trimethylbenzene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,3,5-Trimethylbenzene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,2-Dichloroethane (EDC)	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,2-Dibromoethane (EDB)	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Naphthalene	ND	0.00167		mg/Kg	1	10/17/2012 11:38:49 PM
1-Methylnaphthalene	ND	0.00334		mg/Kg	1	10/17/2012 11:38:49 PM
2-Methylnaphthalene	ND	0.00334		mg/Kg	1	10/17/2012 11:38:49 PM
Acetone	0.0615	0.00834		mg/Kg	1	10/17/2012 11:38:49 PM
Bromobenzene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Bromodichloromethane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Bromoform	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Bromomethane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
2-Butanone	0.0107	0.00834		mg/Kg	1	10/17/2012 11:38:49 PM
Carbon tetrachloride	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Chlorobenzene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Chloroethane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-017 **Matrix:** SOIL

Client Sample ID: SWMU 1-17 (1-1.5')
Collection Date: 10/15/2012 5:40:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Chloromethane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
2-Chlorotoluene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Carbon disulfide	ND	0.00834		mg/Kg	1	10/17/2012 11:38:49 PM
4-Chlorotoluene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
cis-1,2-DCE	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
cis-1,3-Dichloropropene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,2-Dibromo-3-chloropropane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Dibromochloromethane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Dibromomethane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,2-Dichlorobenzene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,3-Dichlorobenzene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,4-Dichlorobenzene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Dichlorodifluoromethane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,1-Dichloroethane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,1-Dichloroethene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,2-Dichloropropane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,3-Dichloropropane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
2,2-Dichloropropane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,1-Dichloropropene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Hexachlorobutadiene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Isopropylbenzene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
4-Isopropyltoluene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Methylene chloride	ND	0.00250		mg/Kg	1	10/17/2012 11:38:49 PM
n-Butylbenzene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
2-Hexanone	ND	0.00834		mg/Kg	1	10/17/2012 11:38:49 PM
n-Propylbenzene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
sec-Butylbenzene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Styrene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
4-Methyl-2-pentanone	ND	0.00834		mg/Kg	1	10/17/2012 11:38:49 PM
tert-Butylbenzene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,1,1,2-Tetrachloroethane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,1,2,2-Tetrachloroethane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Tetrachloroethene (PCE)	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
trans-1,2-DCE	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
trans-1,3-Dichloropropene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,2,3-Trichlorobenzene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,2,4-Trichlorobenzene	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,1,1-Trichloroethane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
1,1,2-Trichloroethane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Trichloroethene (TCE)	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Trichlorofluoromethane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-017 **Matrix:** SOIL

Client Sample ID: SWMU 1-17 (1-1.5')
Collection Date: 10/15/2012 5:40:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Vinyl chloride	ND	0.000834		mg/Kg	1	10/17/2012 11:38:49 PM
Surr: 1,2-Dichloroethane-d4	96.7	70-130		%REC	1	10/17/2012 11:38:49 PM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	1	10/17/2012 11:38:49 PM
Surr: Dibromofluoromethane	107	70-130		%REC	1	10/17/2012 11:38:49 PM
Surr: Toluene-d8	82.3	70-130		%REC	1	10/17/2012 11:38:49 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB101512
Project: SWMU NO.1
Collection Date: 10/15/2012 6:00:00 PM
Lab ID: 1210811-018
Matrix: AQUEOUS
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/17/2012 5:29:17 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/17/2012 5:29:17 PM
Surr: DNOP	110	79.5-166		%REC	1	10/17/2012 5:29:17 PM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	ND	0.10		mg/L	1	10/17/2012 11:42:11 AM
Chloride	ND	0.50		mg/L	1	10/17/2012 11:42:11 AM
Sulfate	ND	0.50		mg/L	1	10/17/2012 11:42:11 AM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	ND	0.0020		mg/L	1	10/17/2012 9:49:33 PM
Beryllium	ND	0.0020		mg/L	1	10/17/2012 9:49:33 PM
Cadmium	ND	0.0020		mg/L	1	10/17/2012 9:49:33 PM
Chromium	ND	0.0060		mg/L	1	10/17/2012 9:49:33 PM
Cobalt	0.16	0.0060		mg/L	1	10/17/2012 9:49:33 PM
Iron	0.16	0.020		mg/L	1	10/18/2012 1:47:35 PM
Manganese	ND	0.0020		mg/L	1	10/17/2012 9:49:33 PM
Nickel	ND	0.010		mg/L	1	10/17/2012 9:49:33 PM
Silver	ND	0.0050		mg/L	1	10/17/2012 9:49:33 PM
Vanadium	ND	0.050		mg/L	1	10/17/2012 9:49:33 PM
Zinc	ND	0.010		mg/L	1	10/17/2012 9:49:33 PM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0010		mg/L	1	10/30/2012 4:04:21 PM
Arsenic	ND	0.0010		mg/L	1	10/30/2012 4:04:21 PM
Lead	ND	0.0010		mg/L	1	10/30/2012 4:04:21 PM
Selenium	ND	0.0010		mg/L	1	10/30/2012 4:04:21 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	10/30/2012 6:51:42 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Acenaphthylene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Aniline	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Anthracene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Azobenzene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Benz(a)anthracene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Benzoic acid	ND	20		µg/L	1	10/22/2012 7:47:47 PM
Benzyl alcohol	ND	10		µg/L	1	10/22/2012 7:47:47 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB101512
Project: SWMU NO.1
Collection Date: 10/15/2012 6:00:00 PM
Lab ID: 1210811-018
Matrix: AQUEOUS
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/22/2012 7:47:47 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Carbazole	ND	10		µg/L	1	10/22/2012 7:47:47 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/22/2012 7:47:47 PM
4-Chloroaniline	ND	10		µg/L	1	10/22/2012 7:47:47 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
2-Chlorophenol	ND	10		µg/L	1	10/22/2012 7:47:47 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Chrysene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Di-n-octyl phthalate	ND	20		µg/L	1	10/22/2012 7:47:47 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Dibenzofuran	ND	10		µg/L	1	10/22/2012 7:47:47 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Diethyl phthalate	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Dimethyl phthalate	ND	10		µg/L	1	10/22/2012 7:47:47 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/22/2012 7:47:47 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/22/2012 7:47:47 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/22/2012 7:47:47 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/22/2012 7:47:47 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Fluoranthene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Fluorene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Hexachlorobenzene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Hexachloroethane	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Isophorone	ND	10		µg/L	1	10/22/2012 7:47:47 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
2-Methylphenol	ND	10		µg/L	1	10/22/2012 7:47:47 PM
3+4-Methylphenol	ND	10		µg/L	1	10/22/2012 7:47:47 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/22/2012 7:47:47 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210811-018 **Matrix:** AQUEOUS

Client Sample ID: EB101512
Collection Date: 10/15/2012 6:00:00 PM
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
N-Nitrosodimethylamine	ND	10		µg/L	1	10/22/2012 7:47:47 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Naphthalene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
2-Nitroaniline	ND	10		µg/L	1	10/22/2012 7:47:47 PM
3-Nitroaniline	ND	10		µg/L	1	10/22/2012 7:47:47 PM
4-Nitroaniline	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Nitrobenzene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
2-Nitrophenol	ND	10		µg/L	1	10/22/2012 7:47:47 PM
4-Nitrophenol	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Pentachlorophenol	ND	20		µg/L	1	10/22/2012 7:47:47 PM
Phenanthrene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Phenol	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Pyrene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Pyridine	ND	10		µg/L	1	10/22/2012 7:47:47 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/22/2012 7:47:47 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/22/2012 7:47:47 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/22/2012 7:47:47 PM
Surr: 2,4,6-Tribromophenol	79.8	42.9-124		%REC	1	10/22/2012 7:47:47 PM
Surr: 2-Fluorobiphenyl	73.5	40-108		%REC	1	10/22/2012 7:47:47 PM
Surr: 2-Fluorophenol	54.3	23.6-94.8		%REC	1	10/22/2012 7:47:47 PM
Surr: 4-Terphenyl-d14	70.5	41.9-103		%REC	1	10/22/2012 7:47:47 PM
Surr: Nitrobenzene-d5	79.5	42.6-114		%REC	1	10/22/2012 7:47:47 PM
Surr: Phenol-d5	39.4	20.3-74.7		%REC	1	10/22/2012 7:47:47 PM
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Benzene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
Toluene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
Ethylbenzene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
Naphthalene	ND	2.0		µg/L	1	10/20/2012 5:00:19 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/20/2012 5:00:19 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/20/2012 5:00:19 AM
Acetone	ND	10		µg/L	1	10/20/2012 5:00:19 AM
Bromobenzene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
Bromodichloromethane	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
Bromoform	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
Bromomethane	ND	3.0		µg/L	1	10/20/2012 5:00:19 AM
2-Butanone	ND	10		µg/L	1	10/20/2012 5:00:19 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB101512
Project: SWMU NO.1
Collection Date: 10/15/2012 6:00:00 PM
Lab ID: 1210811-018
Matrix: AQUEOUS
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
Carbon disulfide	ND	10		µg/L	1	10/20/2012 5:00:19 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
Chlorobenzene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
Chloroethane	ND	2.0		µg/L	1	10/20/2012 5:00:19 AM
Chloroform	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
Chloromethane	ND	3.0		µg/L	1	10/20/2012 5:00:19 AM
2-Chlorotoluene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
4-Chlorotoluene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
cis-1,2-DCE	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/20/2012 5:00:19 AM
Dibromochloromethane	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
Dibromomethane	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/20/2012 5:00:19 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
2-Hexanone	ND	10		µg/L	1	10/20/2012 5:00:19 AM
Isopropylbenzene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/20/2012 5:00:19 AM
Methylene Chloride	ND	3.0		µg/L	1	10/20/2012 5:00:19 AM
n-Butylbenzene	ND	3.0		µg/L	1	10/20/2012 5:00:19 AM
n-Propylbenzene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
sec-Butylbenzene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
Styrene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
tert-Butylbenzene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/20/2012 5:00:19 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
trans-1,2-DCE	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB101512
Project: SWMU NO.1
Collection Date: 10/15/2012 6:00:00 PM
Lab ID: 1210811-018
Matrix: AQUEOUS
Received Date: 10/17/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **MMS**
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/20/2012 5:00:19 AM
Vinyl chloride	ND	1.0		µg/L	1	10/20/2012 5:00:19 AM
Xylenes, Total	ND	1.5		µg/L	1	10/20/2012 5:00:19 AM
Surr: 1,2-Dichloroethane-d4	98.4	70-130		%REC	1	10/20/2012 5:00:19 AM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	10/20/2012 5:00:19 AM
Surr: Dibromofluoromethane	104	70-130		%REC	1	10/20/2012 5:00:19 AM
Surr: Toluene-d8	97.7	70-130		%REC	1	10/20/2012 5:00:19 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/20/2012 11:46:01 PM
Surr: BFB	91.0	70-130		%REC	1	10/20/2012 11:46:01 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 121018035
Project Name: 1210811

Analytical Results Report

Sample Number 121018035-001 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM
Client Sample ID 1210811-001D / SWMU 1-9 (0-0.5) **Sampling Time** 10:55 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	1.41	mg/Kg	0.26	10/29/2012	CRW	EPA 335.4	
%moisture	7.9	Percent		10/30/2012	CRW	%moisture	

Sample Number 121018035-002 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM
Client Sample ID 1210811-002D / SWMU 1-9 (1.5-2) **Sampling Time** 11:05 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.285	10/29/2012	CRW	EPA 335.4	
%moisture	14.4	Percent		10/30/2012	CRW	%moisture	

Sample Number 121018035-003 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM
Client Sample ID 1210811-003D / SWMU 1-10 (0-0.5) **Sampling Time** 11:20 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	1.84	mg/Kg	0.241	10/29/2012	CRW	EPA 335.4	
%moisture	2.9	Percent		10/30/2012	CRW	%moisture	

Sample Number 121018035-004 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM
Client Sample ID 1210811-004D / SWMU 1-10 (1.5-2) **Sampling Time** 11:30 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.399	mg/Kg	0.256	10/29/2012	CRW	EPA 335.4	
%moisture	4.2	Percent		10/30/2012	CRW	%moisture	

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 121018035
Project Name: 1210811

Analytical Results Report

Sample Number 121018035-005 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM
Client Sample ID 1210811-005D / SWMU 1-11 (0-0.5) **Sampling Time** 12:05 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.716	mg/Kg	0.261	10/29/2012	CRW	EPA 335.4	
%moisture	5.1	Percent		10/30/2012	CRW	%moisture	

Sample Number 121018035-006 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM
Client Sample ID 1210811-006D / SWMU 1-11 (1.5-2) **Sampling Time** 12:20 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	1.68	mg/Kg	0.267	10/29/2012	CRW	EPA 335.4	
%moisture	5.5	Percent		10/30/2012	CRW	%moisture	

Sample Number 121018035-007 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM
Client Sample ID 1210811-007D / SWMU 1-12 (0-0.5) **Sampling Time** 2:45 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.25	10/29/2012	CRW	EPA 335.4	
%moisture	2.9	Percent		10/30/2012	CRW	%moisture	

Sample Number 121018035-008 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM
Client Sample ID 1210811-008D / SWMU 1-12 (0.5-1) **Sampling Time** 3:00 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	1.15	mg/Kg	0.245	10/29/2012	CRW	EPA 335.4	
%moisture	2.9	Percent		10/30/2012	CRW	%moisture	

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 121018035
Project Name: 1210811

Analytical Results Report

Sample Number 121018035-009 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM
Client Sample ID 1210811-009D / SWMU 1-14 (0-0.5) **Sampling Time** 3:30 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.268	10/29/2012	CRW	EPA 335.4	
%moisture	7.5	Percent		10/30/2012	CRW	%moisture	

Sample Number 121018035-010 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM
Client Sample ID 1210811-010D / SWMU 1-14 (1.5-2) **Sampling Time** 3:55 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.287	10/29/2012	CRW	EPA 335.4	
%moisture	12.7	Percent		10/30/2012	CRW	%moisture	

Sample Number 121018035-011 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM
Client Sample ID 1210811-011D / SWMU 1-14 (1.5-2) **Sampling Time** 3:55 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.284	10/29/2012	CRW	EPA 335.4	
%moisture	12.3	Percent		10/30/2012	CRW	%moisture	

Sample Number 121018035-012 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM
Client Sample ID 1210811-012D / SWMU 1-15 (0-0.5) **Sampling Time** 4:20 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.276	10/29/2012	CRW	EPA 335.4	
%moisture	9.4	Percent		10/30/2012	CRW	%moisture	

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 121018035
Project Name: 1210811

Analytical Results Report

Sample Number 121018035-013 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM
Client Sample ID 1210811-013D / SWMU 1-15 (1.5-2) **Sampling Time** 4:30 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.281	10/29/2012	CRW	EPA 335.4	
%moisture	12.1	Percent		10/30/2012	CRW	%moisture	

Sample Number 121018035-014 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM
Client Sample ID 1210811-014D / SWMU 1-16 (0-0.5) **Sampling Time** 4:55 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.254	10/29/2012	CRW	EPA 335.4	
%moisture	2.3	Percent		10/30/2012	CRW	%moisture	

Sample Number 121018035-015 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM
Client Sample ID 1210811-015D / SWMU 1-16 (1.5-2) **Sampling Time** 5:05 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.285	10/29/2012	CRW	EPA 335.4	
%moisture	12.7	Percent		10/30/2012	CRW	%moisture	

Sample Number 121018035-016 **Sampling Date** 10/15/2012 **Date/Time Received** 10/18/2012 12:20 PM
Client Sample ID 1210811-016D / SWMU 1-17 (0-0.5) **Sampling Time** 5:30 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.244	10/29/2012	CRW	EPA 335.4	
%moisture	3.4	Percent		10/30/2012	CRW	%moisture	

Anatek Labs, Inc.

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	121018035
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1210811
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	121018035-017	**Sampling Date**	10/15/2012	**Date/Time Received**	10/18/2012 12:20 PM
Client Sample ID	1210811-017D / SWMU 1-17 (1-1.5)	**Sampling Time**	5:40 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.273	10/29/2012	CRW	EPA 335.4	
%moisture	11.9	Percent		10/30/2012	CRW	%moisture	

Sample Number	121018035-018	**Sampling Date**	10/15/2012	**Date/Time Received**	10/18/2012 12:20 PM
Client Sample ID	1210811-018F / EB101512	**Sampling Time**	6:00 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	10/29/2012	CRW	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

MCL	EPA's Maximum Contaminant Level
ND	Not Detected
PQL	Practical Quantitation Limit

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The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

QC SUMMARY REPORT

WO#: **1210811**

Hall Environmental Analysis Laboratory, Inc.

29-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R6311**	RunNo: **6311**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181710** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R6311**	RunNo: **6311**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181711** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Beryllium	0.51	0.0020	0.5000	0	103	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.49	0.0060	0.5000	0	98.9	85	115			
Cobalt	0.49	0.0060	0.5000	0	97.1	85	115			
Manganese	0.49	0.0020	0.5000	0	98.1	85	115			
Nickel	0.48	0.010	0.5000	0	95.9	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Vanadium	0.52	0.050	0.5000	0	104	85	115			
Zinc	0.49	0.010	0.5000	0	98.4	85	115			

Sample ID **1210572-018AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R6311**	RunNo: **6311**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181754** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	101	70	130			
Chromium	0.47	0.0060	0.5000	0	95.0	70	130			
Nickel	0.45	0.010	0.5000	0.001290	90.7	70	130			
Zinc	0.46	0.010	0.5000	0	92.7	70	130			

Sample ID **1210572-018AMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R6311**	RunNo: **6311**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181755** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210572-018AMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R6311**	RunNo: **6311**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181755** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	0.50	0.0020	0.5000	0	99.7	70	130	1.02	20	
Chromium	0.47	0.0060	0.5000	0	93.9	70	130	1.11	20	
Nickel	0.46	0.010	0.5000	0.001290	92.0	70	130	1.48	20	
Zinc	0.46	0.010	0.5000	0	91.7	70	130	1.09	20	

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R6342**	RunNo: **6342**
Prep Date:	Analysis Date: **10/18/2012**	SeqNo: **182483** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R6342**	RunNo: **6342**
Prep Date:	Analysis Date: **10/18/2012**	SeqNo: **182484** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	0.49	0.020	0.5000	0	98.1	85	115			

Sample ID **1210513-001AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R6342**	RunNo: **6342**
Prep Date:	Analysis Date: **10/18/2012**	SeqNo: **182578** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.50	0.020	0.5000	0	100	70	130			

Sample ID **1210513-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R6342**	RunNo: **6342**
Prep Date:	Analysis Date: **10/18/2012**	SeqNo: **182579** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.49	0.020	0.5000	0	98.8	70	130	1.41	20	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	**1209858-006AMS**	SampType: **MS**			TestCode: **EPA 200.8: Metals**				
Client ID:	**BatchQC**	Batch ID: **R6580**			RunNo: **6580**				
Prep Date:		Analysis Date: **10/30/2012**			SeqNo: **189993**	Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.027	0.0010	0.02500	0.0009490	105	70	130			

Sample ID	**1209A21-003AMS**	SampType: **MS**			TestCode: **EPA 200.8: Metals**				
Client ID:	**BatchQC**	Batch ID: **R6580**			RunNo: **6580**				
Prep Date:		Analysis Date: **10/30/2012**			SeqNo: **190002**	Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.027	0.0010	0.02500	0.0003493	107	70	130			

Sample ID	**1210832-001EMS**	SampType: **MS**			TestCode: **EPA 200.8: Metals**				
Client ID:	**BatchQC**	Batch ID: **R6580**			RunNo: **6580**				
Prep Date:		Analysis Date: **10/30/2012**			SeqNo: **190029**	Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	100	70	130			
Arsenic	0.026	0.0010	0.02500	0	105	70	130			
Selenium	0.026	0.0010	0.02500	0	103	70	130			

Sample ID	**1210841-001AMS**	SampType: **MS**			TestCode: **EPA 200.8: Metals**				
Client ID:	**BatchQC**	Batch ID: **R6580**			RunNo: **6580**				
Prep Date:		Analysis Date: **10/30/2012**			SeqNo: **190033**	Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.16	0.0050	0.1250	0.03863	96.0	70	130			

Sample ID	**LCS**	SampType: **LCS**			TestCode: **EPA 200.8: Metals**				
Client ID:	**LCSW**	Batch ID: **R6580**			RunNo: **6580**				
Prep Date:		Analysis Date: **10/30/2012**			SeqNo: **190071**	Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.026	0.0010	0.02500	0	103	85	115			
Arsenic	0.026	0.0010	0.02500	0	103	85	115			
Lead	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.026	0.0010	0.02500	0	102	85	115			

Sample ID	**LCS**	SampType: **LCS**			TestCode: **EPA 200.8: Metals**				
Client ID:	**LCSW**	Batch ID: **R6580**			RunNo: **6580**				
Prep Date:		Analysis Date: **10/30/2012**			SeqNo: **190073**	Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.026	0.0010	0.02500	0	106	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6580**	RunNo: **6580**
Prep Date:	Analysis Date: **10/30/2012**	SeqNo: **190075** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6580**	RunNo: **6580**
Prep Date:	Analysis Date: **10/30/2012**	SeqNo: **190077** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4585**	SampType: **mblk**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **PBW**	Batch ID: **4585**	RunNo: **6596**
Prep Date: **10/30/2012**	Analysis Date: **10/30/2012**	SeqNo: **190499** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID **LCS-4585**	SampType: **lcs**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **LCSW**	Batch ID: **4585**	RunNo: **6596**
Prep Date: **10/30/2012**	Analysis Date: **10/30/2012**	SeqNo: **190500** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.5	80	120			

Sample ID **1210C89-001AMS**	SampType: **ms**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **4585**	RunNo: **6596**
Prep Date: **10/30/2012**	Analysis Date: **10/30/2012**	SeqNo: **190525** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0098	0.00040	0.01000	0	97.9	75	125			

Sample ID **1210C89-001AMSD**	SampType: **msd**	TestCode: **EPA Method 245.1: Mercury**
Client ID: **BatchQC**	Batch ID: **4585**	RunNo: **6596**
Prep Date: **10/30/2012**	Analysis Date: **10/30/2012**	SeqNo: **190526** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0096	0.00040	0.01000	0	95.8	75	125	2.25	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

nt: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6314**	RunNo: **6314**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181811** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6314**	RunNo: **6314**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181812** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.46	0.10	0.5000	0	92.2	90	110			
Chloride	5.0	0.50	5.000	0	99.4	90	110			
Sulfate	9.9	0.50	10.00	0	99.4	90	110			

Sample ID **1210811-018CMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **EB101512**	Batch ID: **R6314**	RunNo: **6314**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181814** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.46	0.10	0.5000	0	91.9	76.6	110			
Chloride	5.0	0.50	5.000	0	99.6	87.8	111			
Sulfate	9.8	0.50	10.00	0	97.6	84.6	122			

Sample ID **1210811-018CMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **EB101512**	Batch ID: **R6314**	RunNo: **6314**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181815** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.45	0.10	0.5000	0	90.8	76.6	110	1.21	20	
Chloride	4.8	0.50	5.000	0	95.9	87.8	111	3.74	20	
Sulfate	9.4	0.50	10.00	0	94.1	84.6	122	3.75	20	

Sample ID **1210825-001BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6314**	RunNo: **6314**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181818** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.1	0.10	0.5000	0.6296	88.2	76.6	110			

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210825-001BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6314**	RunNo: **6314**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181819** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	1.1	0.10	0.5000	0.6296	88.1	76.6	110	0.0510	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

nt: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **MB-4369**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4369**	RunNo: **6325**
Prep Date: **10/17/2012**	Analysis Date: **10/18/2012**	SeqNo: **182210** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		102	77.6	140			

Sample ID **LCS-4369**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4369**	RunNo: **6325**
Prep Date: **10/17/2012**	Analysis Date: **10/18/2012**	SeqNo: **182211** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.4	52.6	130			
Surr: DNOP	4.4		5.000		87.6	77.6	140			

Sample ID **MB-4366**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4366**	RunNo: **6331**
Prep Date: **10/17/2012**	Analysis Date: **10/18/2012**	SeqNo: **182277** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
el Range Organics (DRO)	ND	10								
r Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.5		10.00		94.8	77.6	140			

Sample ID **LCS-4366**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4366**	RunNo: **6331**
Prep Date: **10/17/2012**	Analysis Date: **10/18/2012**	SeqNo: **182278** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	33	10	50.00	0	66.7	52.6	130			
Surr: DNOP	4.3		5.000		86.3	77.6	140			

Sample ID **1210743-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **4366**	RunNo: **6331**
Prep Date: **10/17/2012**	Analysis Date: **10/18/2012**	SeqNo: **182280** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	31	9.9	49.55	0	62.0	57.2	146			
Surr: DNOP	4.1		4.955		82.1	77.6	140			

Sample ID **1210743-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **4366**	RunNo: **6331**
Prep Date: **10/17/2012**	Analysis Date: **10/18/2012**	SeqNo: **182281** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210743-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC** Batch ID: **4366** RunNo: **6331**
Prep Date: **10/17/2012** Analysis Date: **10/18/2012** SeqNo: **182281** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	33	10	51.39	0	63.3	57.2	146	5.63	24.5	
Surr: DNOP	4.4		5.139		85.7	77.6	140	0	0	

Sample ID **MB-4397** SampType: **MBLK** TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS** Batch ID: **4397** RunNo: **6325**
Prep Date: **10/18/2012** Analysis Date: **10/18/2012** SeqNo: **182283** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		103	77.6	140			

Sample ID **LCS-4397** SampType: **LCS** TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **4397** RunNo: **6325**
Prep Date: **10/18/2012** Analysis Date: **10/18/2012** SeqNo: **182284** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		86.9	77.6	140			

Sample ID **1210811-013CMS** SampType: **MS** TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **SWMU 1-15 (1.5-2')** Batch ID: **4369** RunNo: **6331**
Prep Date: **10/17/2012** Analysis Date: **10/18/2012** SeqNo: **182453** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	10	50.51	0	68.3	57.2	146			
Surr: DNOP	4.3		5.051		86.0	77.6	140			

Sample ID **1210811-013CMSD** SampType: **MSD** TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **SWMU 1-15 (1.5-2')** Batch ID: **4369** RunNo: **6331**
Prep Date: **10/17/2012** Analysis Date: **10/18/2012** SeqNo: **182454** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	31	9.6	48.03	0	63.7	57.2	146	12.0	24.5	
Surr: DNOP	4.0		4.803		84.0	77.6	140	0	0	

Sample ID **MB-4404** SampType: **MBLK** TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS** Batch ID: **4404** RunNo: **6356**
Prep Date: **10/18/2012** Analysis Date: **10/19/2012** SeqNo: **182984** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		95.6	77.6	140			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

nt: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID	LCS-4404	SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	4404		RunNo:	6356				
Prep Date:	10/18/2012	Analysis Date:	10/19/2012		SeqNo:	182985	Units:	%REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.3	77.6	140			

Sample ID	1210819-001AMS	SampType:	MS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	BatchQC	Batch ID:	4404		RunNo:	6356				
Prep Date:	10/18/2012	Analysis Date:	10/19/2012		SeqNo:	183001	Units:	%REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.899		79.7	77.6	140			

Sample ID	1210819-001AMSD	SampType:	MSD		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	BatchQC	Batch ID:	4404		RunNo:	6356				
Prep Date:	10/18/2012	Analysis Date:	10/19/2012		SeqNo:	183002	Units:	%REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		6.148		79.2	77.6	140	0	0	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1210811**

Hall Environmental Analysis Laboratory, Inc.

29-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **MB-4383**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **4383**	RunNo: **6305**
Prep Date: **10/17/2012**	Analysis Date: **10/17/2012**	SeqNo: **181999** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		107	79.5	166			

Sample ID **LCS-4383**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **4383**	RunNo: **6305**
Prep Date: **10/17/2012**	Analysis Date: **10/17/2012**	SeqNo: **182000** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	3.8	1.0	5.000	0	75.9	74	157			
Surr: DNOP	0.48		0.5000		96.6	79.5	166			

Sample ID **LCSD-4383**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **4383**	RunNo: **6305**
Prep Date: **10/17/2012**	Analysis Date: **10/17/2012**	SeqNo: **182001** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	3.8	1.0	5.000	0	75.5	74	157	0.595	23	
Surr: DNOP	0.47		0.5000		94.9	79.5	166	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	MB-4420	SampType:	MBLK		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	PBS	Batch ID:	4420		RunNo:	6401				
Prep Date:	10/19/2012	Analysis Date:	10/22/2012		SeqNo:	184413	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	930		1000		93.3	84	116			

Sample ID	LCS-4420	SampType:	LCS		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	LCSS	Batch ID:	4420		RunNo:	6401				
Prep Date:	10/19/2012	Analysis Date:	10/22/2012		SeqNo:	184414	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.7	74	117			
Surr: BFB	990		1000		99.5	84	116			

Sample ID	1210916-002AMS	SampType:	MS		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	BatchQC	Batch ID:	4420		RunNo:	6401				
Prep Date:	10/19/2012	Analysis Date:	10/22/2012		SeqNo:	184418	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	35	4.8	24.06	1.798	137	70	130			S
rr: BFB	1100		962.5		115	84	116			

Sample ID	1210916-002AMSD	SampType:	MSD		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	BatchQC	Batch ID:	4420		RunNo:	6401				
Prep Date:	10/19/2012	Analysis Date:	10/22/2012		SeqNo:	184419	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	36	4.8	24.02	1.798	144	70	130	4.59	22.1	S
Surr: BFB	1100		960.6		117	84	116	0	0	S

Sample ID	5ML RB	SampType:	MBLK		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	PBS	Batch ID:	R6457		RunNo:	6457				
Prep Date:		Analysis Date:	10/24/2012		SeqNo:	186219	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		91.7	84	116			

Sample ID	2.5UG GRO LCS	SampType:	LCS		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	LCSS	Batch ID:	R6457		RunNo:	6457				
Prep Date:		Analysis Date:	10/24/2012		SeqNo:	186225	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.5	74	117			
Surr: BFB	930		1000		93.1	84	116			

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210811-011BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **SWMU 1-14 (1.5-2')**	Batch ID: **R6457**	RunNo: **6457**
Prep Date:	Analysis Date: **10/24/2012**	SeqNo: **186249** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	5.0	15.90	0	110	70	130	12.7	22.1	
Surr: BFB	590		636.0		93.2	84	116	0	0	

Sample ID **1210811-011BMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **SWMU 1-14 (1.5-2')**	Batch ID: **R6457**	RunNo: **6487**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187647** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	15	5.0	15.91	0	96.6	70	130			
Surr: BFB	650		636.4		102	84	116			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4361**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4361**	RunNo: **6338**
Prep Date: **10/17/2012**	Analysis Date: **10/17/2012**	SeqNo: **182426** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
Naphthalene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
none	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								

fiers:

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4361** SampType: **MBLK** TestCode: **Method 8260B/5035LOW: VOLATILES**

Client ID: **PBS** Batch ID: **4361** RunNo: **6338**

Prep Date: **10/17/2012** Analysis Date: **10/17/2012** SeqNo: **182426** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	47.9		50.00		95.7	70	130			
Surr: 4-Bromofluorobenzene	45.7		50.00		91.4	70	130			
Surr: Dibromofluoromethane	53.2		50.00		106	70	130			
Surr: Toluene-d8	50.2		50.00		100	70	130			

Sample ID **lcs-4361** SampType: **LCS** TestCode: **Method 8260B/5035LOW: VOLATILES**

Client ID: **LCSS** Batch ID: **4361** RunNo: **6338**

Prep Date: **10/17/2012** Analysis Date: **10/17/2012** SeqNo: **182428** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	7.10	1.00	8.000	0	88.8	60	140			
Toluene	6.78	1.00	8.000	0	84.8	60	140			
Chlorobenzene	8.05	1.00	8.000	0	101	60	140			
1,1-Dichloroethene	8.50	1.00	8.000	0	106	60	140			
Trichloroethene (TCE)	6.66	1.00	8.000	0	83.2	60	140			
Surr: 1,2-Dichloroethane-d4	47.3		50.00		94.6	70	130			
Surr: 4-Bromofluorobenzene	43.0		50.00		86.1	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4361**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4361**	RunNo: **6338**
Prep Date: **10/17/2012**	Analysis Date: **10/17/2012**	SeqNo: **182428** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	52.5		50.00		105	70	130			
Surr: Toluene-d8	43.8		50.00		87.6	70	130			

Sample ID **mb-4393**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4393**	RunNo: **6360**
Prep Date: **10/18/2012**	Analysis Date: **10/18/2012**	SeqNo: **182928** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
halene	ND	0.00200								
ethylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
2-Butanone	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4393**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4393**	RunNo: **6360**
Prep Date: **10/18/2012**	Analysis Date: **10/18/2012**	SeqNo: **182928** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	46.1		50.00		92.1	70	130			
Surr: 4-Bromofluorobenzene	44.8		50.00		89.6	70	130			
Surr: Dibromofluoromethane	53.0		50.00		106	70	130			
Surr: Toluene-d8	42.4		50.00		84.8	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4393**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4393**	RunNo: **6360**
Prep Date: **10/18/2012**	Analysis Date: **10/18/2012**	SeqNo: **182930** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	8.87	1.00	10.00	0	88.7	60	140			
Toluene	8.50	1.00	10.00	0	85.0	60	140			
Chlorobenzene	9.38	1.00	10.00	0	93.8	60	140			
1,1-Dichloroethene	11.0	1.00	10.00	0	110	60	140			
Trichloroethene (TCE)	7.70	1.00	10.00	0	77.0	60	140			
Surr: 1,2-Dichloroethane-d4	44.9		50.00		89.8	70	130			
Surr: 4-Bromofluorobenzene	40.9		50.00		81.7	70	130			
Surr: Dibromofluoromethane	50.4		50.00		101	70	130			
Surr: Toluene-d8	41.1		50.00		82.2	70	130			

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R6432**	RunNo: **6432**	
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184843**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

ent: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6432**	RunNo: **6432**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184843** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.3	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6432**	RunNo: **6432**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184845** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	90.1	70	130			
Toluene	20	1.0	20.00	0	102	80	120			
Chlorobenzene	19	1.0	20.00	0	94.7	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.8	73.7	122			
Trichloroethene (TCE)	19	1.0	20.00	0	94.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		108	70	130			

lifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1210811**

Hall Environmental Analysis Laboratory, Inc.

29-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6432**	RunNo: **6432**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184845** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.9		10.00		99.1	70	130			
Surr: Toluene-d8	9.7		10.00		96.6	70	130			

Sample ID **b6**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6432**	RunNo: **6432**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184881** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

ent: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **b6**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6432**	RunNo: **6432**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184881** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
[illegible]ene	ND	1.0								
[illegible]utylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		98.6	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.6	70	130			
Surr: Dibromofluoromethane	10		10.00		105	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

lifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210828-005ams** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R6432** RunNo: **6432**

Prep Date: Analysis Date: **10/20/2012** SeqNo: **184887** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.4	66.8	128			
Toluene	22	1.0	20.00	0	111	70	130			
Chlorobenzene	20	1.0	20.00	0	99.8	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	108	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	96.7	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.9		10.00		99.2	70	130			

Sample ID **1210828-005amsd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R6432** RunNo: **6432**

Prep Date: Analysis Date: **10/20/2012** SeqNo: **184888** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.8	66.8	128	3.88	16.7	
Toluene	21	1.0	20.00	0	107	70	130	3.39	18.7	
Chlorobenzene	19	1.0	20.00	0	96.3	70	130	3.62	19.5	
1,1-Dichloroethene	20	1.0	20.00	0	97.6	70	130	9.75	16.7	
Trichloroethene (TCE)	19	1.0	20.00	0	94.2	70	130	2.61	17.5	
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130	0	0	
Surr: Dibromofluoromethane	9.7		10.00		96.8	70	130	0	0	
Surr: Toluene-d8	9.8		10.00		98.1	70	130	0	0	

Sample ID **lcs2** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R6432** RunNo: **6432**

Prep Date: Analysis Date: **10/20/2012** SeqNo: **189689** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.1	70	130			
Toluene	20	1.0	20.00	0	100	80	120			
Chlorobenzene	20	1.0	20.00	0	99.3	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	106	73.7	122			
Trichloroethene (TCE)	21	1.0	20.00	0	107	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.8	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.0	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	9.4		10.00		94.3	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4400**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4400**	RunNo: **6384**
Prep Date: **10/18/2012**	Analysis Date: **10/21/2012**	SeqNo: **183689** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
' `mophenyl phenyl ether	ND	0.20								
`enzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **mb-4400**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4400**	RunNo: **6384**
Prep Date: **10/18/2012**	Analysis Date: **10/21/2012**	SeqNo: **183689** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.0		3.330		89.4	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.670		94.4	20	131			
Surr: 2-Fluorophenol	2.9		3.330		88.5	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		79.3	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.670		99.1	25.6	137			
Surr: Phenol-d5	3.1		3.330		91.7	20.3	132			

Sample ID **lcs-4400**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4400**	RunNo: **6384**
Prep Date: **10/18/2012**	Analysis Date: **10/21/2012**	SeqNo: **183690** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

ent: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4400**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4400**	RunNo: **6384**
Prep Date: **10/18/2012**	Analysis Date: **10/21/2012**	SeqNo: **183690** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.4	0.20	1.670	0	84.0	49.7	98.1			
4-Chloro-3-methylphenol	2.7	0.50	3.330	0	81.7	43.8	89.1			
2-Chlorophenol	2.5	0.20	3.330	0	76.1	41.1	96.9			
1,4-Dichlorobenzene	1.3	0.20	1.670	0	75.4	41	97.4			
2,4-Dinitrotoluene	1.5	0.50	1.670	0	89.7	44.4	104			
N-Nitrosodi-n-propylamine	1.4	0.20	1.670	0	83.6	39.1	86.9			
4-Nitrophenol	2.5	0.25	3.330	0	74.6	44.2	107			
Pentachlorophenol	2.1	0.40	3.330	0	64.2	36.2	80			
Phenol	2.5	0.20	3.330	0	74.2	42.7	92.7			
Pyrene	1.3	0.20	1.670	0	76.3	34.7	98.8			
1,2,4-Trichlorobenzene	1.4	0.20	1.670	0	85.3	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.6		3.330		109	21.3	145			
Surr: 2-Fluorobiphenyl	1.8		1.670		109	20	131			
Surr: 2-Fluorophenol	3.1		3.330		91.8	11.9	130			
Surr: 4-Terphenyl-d14	1.5		1.670		87.1	25.1	149			
Surr: Nitrobenzene-d5	1.8		1.670		108	25.6	137			
Surr: Phenol-d5	3.2		3.330		95.9	20.3	132			

Sample ID **1210811-002CMS**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **SWMU 1-9 (1.5-2')**	Batch ID: **4400**	RunNo: **6384**
Prep Date: **10/18/2012**	Analysis Date: **10/22/2012**	SeqNo: **183711** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.673	0	71.4	25.6	142			
4-Chloro-3-methylphenol	2.4	0.50	3.337	0	71.1	63.7	100			
2-Chlorophenol	2.4	0.20	3.337	0	72.7	22.2	126			
1,4-Dichlorobenzene	1.2	0.20	1.673	0	70.8	12.4	115			
2,4-Dinitrotoluene	1.3	0.50	1.673	0	78.0	14.9	142			
N-Nitrosodi-n-propylamine	1.4	0.20	1.673	0	81.4	13.9	136			
4-Nitrophenol	2.4	0.25	3.337	0.09450	69.3	36.7	130			
Pentachlorophenol	2.2	0.40	3.337	0	65.2	15.8	113			
Phenol	2.3	0.20	3.337	0	69.9	25.1	124			
Pyrene	1.1	0.20	1.673	0	68.6	35.8	124			
1,2,4-Trichlorobenzene	1.4	0.20	1.673	0	84.8	30	113			
Surr: 2,4,6-Tribromophenol	3.0		3.337		89.9	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.673		88.8	20	131			
Surr: 2-Fluorophenol	2.7		3.337		80.1	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.673		76.2	25.1	149			
Surr: Nitrobenzene-d5	1.8		1.673		105	25.6	137			
Surr: Phenol-d5	3.0		3.337		89.7	20.3	132			

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210811-002CMSD** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **SWMU 1-9 (1.5-2')** Batch ID: **4400** RunNo: **6384**

Prep Date: **10/18/2012** Analysis Date: **10/22/2012** SeqNo: **183712** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.674	0	73.4	25.6	142	2.79	22	
4-Chloro-3-methylphenol	2.3	0.50	3.338	0	68.2	63.7	100	3.99	27.3	
2-Chlorophenol	2.4	0.20	3.338	0	71.5	22.2	126	1.58	26.3	
1,4-Dichlorobenzene	1.1	0.20	1.674	0	66.1	12.4	115	6.82	27.4	
2,4-Dinitrotoluene	1.3	0.50	1.674	0	80.4	14.9	142	3.08	27.4	
N-Nitrosodi-n-propylamine	1.3	0.20	1.674	0	75.8	13.9	136	7.08	22.6	
4-Nitrophenol	2.5	0.25	3.338	0.09450	73.3	36.7	130	5.48	20	
Pentachlorophenol	2.1	0.40	3.338	0	62.8	15.8	113	3.74	27.1	
Phenol	2.1	0.20	3.338	0	64.0	25.1	124	8.86	32.2	
Pyrene	1.2	0.20	1.674	0	71.6	35.8	124	4.33	29.5	
1,2,4-Trichlorobenzene	1.4	0.20	1.674	0	81.2	30	113	4.27	27.8	
Surr: 2,4,6-Tribromophenol	2.8		3.338		83.7	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.5		1.674		90.7	20	131	0	0	
Surr: 2-Fluorophenol	2.6		3.338		79.2	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.3		1.674		76.3	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.6		1.674		96.8	25.6	137	0	0	
Surr: Phenol-d5	2.9		3.338		85.8	20.3	132	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4411**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4411**	RunNo: **6416**
Prep Date: **10/19/2012**	Analysis Date: **10/22/2012**	SeqNo: **184532** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
[illegible]mophenyl phenyl ether	ND	10								
[illegible]enzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	20								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4411**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4411**	RunNo: **6416**
Prep Date: **10/19/2012**	Analysis Date: **10/22/2012**	SeqNo: **184532** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	180		200.0		89.0	42.9	124			
Surr: 2-Fluorobiphenyl	74		100.0		73.7	40	108			
Surr: 2-Fluorophenol	130		200.0		63.3	23.6	94.8			
Surr: 4-Terphenyl-d14	75		100.0		74.5	41.9	103			
Surr: Nitrobenzene-d5	91		100.0		90.8	42.6	114			
Surr: Phenol-d5	100		200.0		49.9	20.3	74.7			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4411**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **4411**	RunNo: **6416**
Prep Date: **10/19/2012**	Analysis Date: **10/22/2012**	SeqNo: **184533** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	69	10	100.0	0	69.3	43.3	92			
4-Chloro-3-methylphenol	150	10	200.0	0	72.7	46.3	108			
2-Chlorophenol	130	10	200.0	0	65.3	38	99.3			
1,4-Dichlorobenzene	62	10	100.0	0	61.6	30.8	80.6			
2,4-Dinitrotoluene	73	10	100.0	0	73.1	46.1	117			
N-Nitrosodi-n-propylamine	73	10	100.0	0	73.0	39.3	110			
4-Nitrophenol	80	10	200.0	0	39.8	29.8	67			
Pentachlorophenol	110	20	200.0	0	55.3	32.2	95.7			
Phenol	78	10	200.0	0	39.2	27	64.8			
Pyrene	72	10	100.0	0	71.5	44.7	97.3			
1,2,4-Trichlorobenzene	73	10	100.0	0	72.7	36.6	86.7			
Surr: 2,4,6-Tribromophenol	170		200.0		87.4	42.9	124			
Surr: 2-Fluorobiphenyl	81		100.0		81.3	40	108			
Surr: 2-Fluorophenol	120		200.0		60.0	23.6	94.8			
Surr: 4-Terphenyl-d14	74		100.0		74.1	41.9	103			
Surr: Nitrobenzene-d5	85		100.0		84.8	42.6	114			
Surr: Phenol-d5	100		200.0		50.3	20.3	74.7			

..nple ID **lcsd-4411**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **4411**	RunNo: **6416**
Prep Date: **10/19/2012**	Analysis Date: **10/22/2012**	SeqNo: **184535** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	63	10	100.0	0	62.5	43.3	92	10.3	25	
4-Chloro-3-methylphenol	140	10	200.0	0	67.6	46.3	108	7.30	32.7	
2-Chlorophenol	120	10	200.0	0	59.8	38	99.3	8.77	20	
1,4-Dichlorobenzene	54	10	100.0	0	53.8	30.8	80.6	13.6	20	
2,4-Dinitrotoluene	70	10	100.0	0	70.2	46.1	117	4.16	29.9	
N-Nitrosodi-n-propylamine	65	10	100.0	0	64.8	39.3	110	11.9	23.1	
4-Nitrophenol	75	10	200.0	0	37.7	29.8	67	5.34	40.5	
Pentachlorophenol	110	20	200.0	0	54.1	32.2	95.7	2.07	37.3	
Phenol	68	10	200.0	0	34.1	27	64.8	14.1	20	
Pyrene	68	10	100.0	0	67.9	44.7	97.3	5.13	26.5	
1,2,4-Trichlorobenzene	67	10	100.0	0	66.7	36.6	86.7	8.58	27.2	
Surr: 2,4,6-Tribromophenol	170		200.0		87.5	42.9	124	0	0	
Surr: 2-Fluorobiphenyl	72		100.0		71.5	40	108	0	0	
Surr: 2-Fluorophenol	110		200.0		53.9	23.6	94.8	0	0	
Surr: 4-Terphenyl-d14	72		100.0		72.5	41.9	103	0	0	
Surr: Nitrobenzene-d5	77		100.0		76.5	42.6	114	0	0	
Surr: Phenol-d5	90		200.0		45.1	20.3	74.7	0	0	

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1210811**

Hall Environmental Analysis Laboratory, Inc.

29-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID	MB-4425	SampType:	MBLK		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	4425		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185335	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-4425	SampType:	LCS		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	4425		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185336	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	99.4	80	120			

Sample ID	1210811-014CMS	SampType:	MS		TestCode:	EPA Method 7471: Mercury				
Client ID:	SWMU 1-16 (0-0.5')	Batch ID:	4425		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185361	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.20	0.033	0.1670	0.02118	109	75	125			

Sample ID	1210811-014CMSD	SampType:	MSD		TestCode:	EPA Method 7471: Mercury				
Client ID:	SWMU 1-16 (0-0.5')	Batch ID:	4425		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185362	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.20	0.033	0.1653	0.02118	109	75	125	1.12	20	

Sample ID	MB-4426	SampType:	MBLK		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	4426		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185363	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-4426	SampType:	LCS		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	4426		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185364	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	101	80	120			

Sample ID	1210859-002CMS	SampType:	MS		TestCode:	EPA Method 7471: Mercury				
Client ID:	BatchQC	Batch ID:	4426		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185391	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1654	0.01134	102	75	125			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	**1210859-002CMSD**	SampType: **MSD**		TestCode: **EPA Method 7471: Mercury**						
Client ID:	**BatchQC**	Batch ID: **4426**		RunNo: **6443**						
Prep Date:	**10/19/2012**	Analysis Date: **10/23/2012**		SeqNo: **185392**		Units: **mg/kg**				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury		0.18	0.033	0.1685	0.01134	99.0	75	125	1.06	20	

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4583**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **4583**	RunNo: **6598**
Prep Date: **10/30/2012**	Analysis Date: **10/31/2012**	SeqNo: **190592** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Iron	ND	1.0								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID **LCS-4583**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **4583**	RunNo: **6598**
Prep Date: **10/30/2012**	Analysis Date: **10/31/2012**	SeqNo: **190593** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	24	2.5	25.00	0	96.4	80	120			
Arsenic	25	2.5	25.00	0	102	80	120			
Barium	24	0.10	25.00	0	97.4	80	120			
Beryllium	26	0.15	25.00	0	103	80	120			
Cadmium	25	0.10	25.00	0	98.8	80	120			
Chromium	25	0.30	25.00	0	98.7	80	120			
Iron	25	1.0	25.00	0.8055	96.4	80	120			
Lead	24	0.25	25.00	0	97.2	80	120			
Manganese	24	0.10	25.00	0.03200	96.1	80	120			
Nickel	24	0.50	25.00	0	94.6	80	120			
Selenium	24	2.5	25.00	0	96.0	80	120			
Vanadium	25	2.5	25.00	0	101	80	120			
Zinc	24	2.5	25.00	0	97.8	80	120			

Sample ID **MB-4499**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **4499**	RunNo: **6598**
Prep Date: **10/24/2012**	Analysis Date: **10/31/2012**	SeqNo: **190715** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

ent: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4499**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **4499**	RunNo: **6598**
Prep Date: **10/24/2012**	Analysis Date: **10/31/2012**	SeqNo: **190715** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	ND	0.10								
Chromium	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Vanadium	ND	2.5								

Sample ID **LCS-4499**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **4499**	RunNo: **6598**
Prep Date: **10/24/2012**	Analysis Date: **10/31/2012**	SeqNo: **190716** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	27	2.5	25.00	0	108	80	120			
Arsenic	29	2.5	25.00	0	117	80	120			
Barium	26	0.10	25.00	0	104	80	120			
'ium	28	0.15	25.00	0.01050	114	80	120			
Cadmium	27	0.10	25.00	0	108	80	120			
Chromium	26	0.30	25.00	0	102	80	120			
Lead	27	0.25	25.00	0	106	80	120			
Manganese	26	0.10	25.00	0.02950	103	80	120			
Nickel	26	0.50	25.00	0	105	80	120			
Selenium	32	2.5	25.00	0	128	80	120			S
Silver	5.1	0.25	5.000	0	101	80	120			
Vanadium	26	2.5	25.00	0.08900	105	80	120			

Sample ID **MB-4499**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **4499**	RunNo: **6670**
Prep Date: **10/24/2012**	Analysis Date: **11/2/2012**	SeqNo: **192435** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cobalt	ND	0.30								
Iron	ND	1.0								
Selenium	ND	2.5								
Zinc	ND	2.5								

Sample ID **LCS-4499**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **4499**	RunNo: **6670**
Prep Date: **10/24/2012**	Analysis Date: **11/2/2012**	SeqNo: **192436** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

lifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	LCS-4499	SampType:	LCS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	LCSS	Batch ID:	4499		RunNo:	6670				
Prep Date:	10/24/2012	Analysis Date:	11/2/2012		SeqNo:	192436	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cobalt	26	0.30	25.00	0	102	80	120			
Iron	27	1.0	25.00	0	106	80	120			
Selenium	29	2.5	25.00	0	117	80	120			
Zinc	27	2.5	25.00	0	106	80	120			

Sample ID	1210811-016CMS	SampType:	MS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	SWMU 1-17 (0-0.5')	Batch ID:	4499		RunNo:	6670				
Prep Date:	10/24/2012	Analysis Date:	11/2/2012		SeqNo:	192540	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	27	0.30	24.90	0.6732	107	75	125			
Cadmium	26	0.20	24.90	0	105	75	125			
Chromium	33	0.60	24.90	6.613	104	75	125			
Cobalt	28	0.60	24.90	4.089	96.6	75	125			
Lead	23	0.50	24.90	0.8184	89.2	75	125			
Nickel	30	1.0	24.90	6.438	94.0	75	125			
Silver	4.9	0.50	4.979	0	99.3	75	125			
Vanadium	46	5.0	24.90	18.97	109	75	125			
Zinc	40	5.0	24.90	15.37	99.3	75	125			

Sample ID	1210811-016CMSD	SampType:	MSD		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	SWMU 1-17 (0-0.5')	Batch ID:	4499		RunNo:	6670				
Prep Date:	10/24/2012	Analysis Date:	11/2/2012		SeqNo:	192541	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	26	0.30	24.83	0.6732	101	75	125	5.69	20	
Cadmium	25	0.20	24.83	0	100	75	125	4.75	20	
Chromium	30	0.60	24.83	6.613	93.2	75	125	8.99	20	
Cobalt	27	0.60	24.83	4.089	90.7	75	125	5.59	20	
Lead	23	0.50	24.83	0.8184	87.6	75	125	1.99	20	
Nickel	28	1.0	24.83	6.438	86.7	75	125	6.41	20	
Silver	4.7	0.50	4.967	0	95.0	75	125	4.71	20	
Vanadium	42	5.0	24.83	18.97	92.5	75	125	9.29	20	
Zinc	38	5.0	24.83	15.37	89.3	75	125	6.54	20	

Sample ID	1210C58-003CMS	SampType:	MS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	BatchQC	Batch ID:	4583		RunNo:	6663				
Prep Date:	10/30/2012	Analysis Date:	11/2/2012		SeqNo:	192743	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	24	2.5	24.84	2.875	86.2	75	125			
Barium	42	0.10	24.84	12.37	120	75	125			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	1210C58-003CMS	SampType:	MS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	BatchQC	Batch ID:	4583		RunNo:	6663				
Prep Date:	10/30/2012	Analysis Date:	11/2/2012		SeqNo:	192743	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cadmium	21	0.10	24.84	0	85.3	75	125			
Chromium	24	0.30	24.84	1.934	89.0	75	125			
Selenium	20	2.5	24.84	0	78.6	75	125			

Sample ID	1210C58-003CMSD	SampType:	MSD		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	BatchQC	Batch ID:	4583		RunNo:	6663				
Prep Date:	10/30/2012	Analysis Date:	11/2/2012		SeqNo:	192744	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	28	2.5	24.62	2.875	102	75	125	14.5	20	
Barium	39	0.10	24.62	12.37	108	75	125	7.61	20	
Cadmium	21	0.10	24.62	0	86.7	75	125	0.763	20	
Chromium	24	0.30	24.62	1.934	90.1	75	125	0.297	20	
Selenium	20	2.5	24.62	0	80.9	75	125	1.99	20	

Sample ID	MB-4745	SampType:	MBLK		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS	Batch ID:	4745		RunNo:	6879				
Prep Date:	11/8/2012	Analysis Date:	11/13/2012		SeqNo:	198947	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.25								

Sample ID	LCS-4745	SampType:	LCS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	LCSS	Batch ID:	4745		RunNo:	6879				
Prep Date:	11/8/2012	Analysis Date:	11/13/2012		SeqNo:	198948	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	5.6	0.25	5.000	0	112	80	120			

Sample ID	1210C58-003CMS	SampType:	MS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	BatchQC	Batch ID:	4745		RunNo:	6885				
Prep Date:	11/8/2012	Analysis Date:	11/14/2012		SeqNo:	199235	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	4.4	0.25	4.807	0.06026	91.2	75	125			

Sample ID	1210C58-003CMSD	SampType:	MSD		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	BatchQC	Batch ID:	4745		RunNo:	6885				
Prep Date:	11/8/2012	Analysis Date:	11/14/2012		SeqNo:	199236	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	4.9	0.25	4.918	0.06026	97.9	75	125	9.20	20	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210811-016CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **SWMU 1-17 (0-0.5')** Batch ID: **4499** RunNo: **7112**

Prep Date: **10/24/2012** Analysis Date: **11/27/2012** SeqNo: **206181** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	5.0	24.90	0	0	75	125			S
Arsenic	28	5.0	24.90	4.739	93.9	75	125			
Selenium	18	5.0	24.90	0	71.6	75	125			S

Sample ID **1210811-016CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **SWMU 1-17 (0-0.5')** Batch ID: **4499** RunNo: **7112**

Prep Date: **10/24/2012** Analysis Date: **11/27/2012** SeqNo: **206182** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	5.0	24.83	0	0	75	125	0	20	S
Arsenic	29	5.0	24.83	4.739	99.5	75	125	4.69	20	
Selenium	17	5.0	24.83	0	67.3	75	125	6.49	20	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210811**

29-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **b6**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/20/2012**	SeqNo: **184074** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.6		10.00		95.8	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184077** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.43	0.050	0.5000	0	86.2	85	115			
Surr: BFB	10		10.00		99.9	70	130			

Sample ID **1210660-001ams**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/20/2012**	SeqNo: **184078** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.0	0.25	2.500	1.915	82.1	70	130			
Surr: BFB	46		50.00		91.6	70	130			

Sample ID **1210660-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/20/2012**	SeqNo: **184079** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	3.8	0.25	2.500	1.915	76.4	70	130	3.70	20	
Surr: BFB	51		50.00		102	70	130	0	0	

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1210811

Received by/date: MG 10/17/12

Logged By: Michelle Garcia 10/17/2012 8:00:00 AM Michelle Garcia

Completed By: Michelle Garcia 10/17/2012 9:05:43 AM Michelle Garcia

Reviewed By: MG 10/17/12

Chain of Custody

1. Were seals intact?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	FedEx		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☑	No ☐	No VOA Vials ☐
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: 1 (<2 or >12 unless noted)

Adjusted?

Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice:
Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210211	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/5/12	1055	SOIL	SWMU 1-9 (0-0.5')	2 VIALS	SOBI	-001										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1105		SWMU 1-9 (1.5-2')	2 VIALS	SOBI	-002										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1120		SWMU 1-10 (0-0.5')	2 VIALS	SOBI	-003										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1130		SWMU 1-10 (1.5-2')	2 VIALS	SOBI	-004										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/10/12	0720		Michelle Garcia	10/11/12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: ☐ Yes ☐ No
Sample Temperature: 1.2 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210681	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/15/12	1205	SOIL	SWMU 1-11 (0-0.5')	2VIALS	SOBI	-005										X						
				2VIALS	MeOH											X						
				3JARS	—											X	X	X	X			
	1220		SWMU 1-11 (1.5-2')	2VIALS	SOBI	-006										X						
				2VIALS	MeOH											X						
				3JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/16/12	0720				
Date:	Time:	Relinquished by:	Received by:	Date	Time
				10/17/12	0800

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: [illegible]
Sample Temperature: [illegible]

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/5/12	1445	SOIL	SWMU 1-12(0-0.5')	2 VIALS	SOBI	-007										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1500		SWMU 1-12(0.5-1')	2 VIALS	SOBI	-008										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1530		SWMU 1-14(0-0.5')	2 VIALS	SOBI	-009										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1555		SWMU 1-14(1.5-2)	2 VIALS	SOBI	-010										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/16/12	0720	[signature]	[signature]	10/17/12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
X Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
X EDD (Type) EXCEL

Turn-Around Time:
X Standard ☐ Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: Yes
Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/15/12	1555	SOIL	SWMU 1-14 (1.5-2')	2 VIALS	SOBI	-011										X						
			DUP	2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1620		SWMU 1-15 (0-0.5')	2 VIALS	SOBI	-012										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1630		SWMU 1-15 (1.5-2')	2 VIALS	SOBI	-013										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			

Date	Time	Relinquished by:	Received by:	Date	Time
10/16/12	0720			10/17/12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: ☒ Yes ☐ No
Sample Temperature: 13 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210831	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/15/12	1655	SOIL	SWMU 1-16 (0-0.5')	2 VIALS	SOBI	-014										X						
	↓		↓	2 VIALS	MEOH											X						
	↓		↓	3 JARS	—											X	X	X	X			
	1705		SWMU 1-16 (1.5-2')	2 VIALS	SOBI	-015										X						
	↓		↓	2 VIALS	MEOH											X						
	↓		↓	3 JARS	—											X	X	X	X			
	1730		SWMU 1-17 (0-0.5')	2 VIALS	SOBI	-016										X						
	↓		↓	2 VIALS	MEOH											X						
	↓		↓	3 JARS	—											X	X	X	X			
	1740		SWMU 1-17 (1-1.5')	2 VIALS	SOBI	-017										X						
	↓		↓	2 VIALS	MEOH											X						
	↓		↓	3 JARS	—											X	X	X	X			

Date: 10/16/12 Time: 0720 Relinquished by: [signature]
Received by: [signature] Date Time: 10/17/12 0800
Date: Time: Relinquished by:
Received by: Date Time:

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING, SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/15/12	1800	W	EB 101512	6 VOA	HCL	-018										X						
↓	↓	↓	↓	1 AMBER	—												X					
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NaOH														X			
				1 PLASTIC	—														X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/16/12	0720			10/17/12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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Rpt	T	Analyte	Units	Synonym	MDL	LOD	LOQ
☐	A	Aluminum	mg/Kg		0.4481	0	
☑	A	Antimony	mg/Kg		0.629	0	
☑	A	Arsenic	mg/Kg		0.6263	0	
☑	A	Barium	mg/Kg		0.0609	0	
☑	A	Beryllium	mg/Kg		0.0093	0	
☐	A	Boron	mg/Kg		0.0826	0	
☑	A	Cadmium	mg/Kg		0.0271	0	
☐	A	Calcium	mg/Kg		6.9713	0	
☑	A	Chromium	mg/Kg		0.1184	0	
☑	A	Cobalt	mg/Kg		0.0689	0	
☐	A	Copper	mg/Kg		0.2323	0	
☑	A	Iron	mg/Kg		0.7476	0	
☑	A	Lead	mg/Kg		0.2194	0	
☐	A	Magnesium	mg/Kg		0.4651	0	
☑	A	Manganese	mg/Kg		0.0212	0	
☐	A	Molybdenum	mg/Kg		0.1423	0	
☑	A	Nickel	mg/Kg		0.1668	0	
☐	A	Potassium	mg/Kg		17.3925	0	
☑	A	Selenium	mg/Kg		1.4025	0	
☑	A	Silver	mg/Kg		0.0354	0	
☐	A	Sodium	mg/Kg		8.4278	0	
☐	A	Thallium	mg/Kg		1.1557	0	
☐	A	Tin	mg/Kg		0.8261	0	
☐	A	Titanium	mg/Kg		0.0342	0	
☐	A	Uranium	mg/Kg		0.7298	0	
☑	A	Vanadium	mg/Kg		0.0565	0	
☑	A	Zinc	mg/Kg		1.0086	0	
☐	I	Yttrium	%		0	0	
☐	I	Yttrium Radial	%		0	0	
☐	X	Uranium-confirmation	mg/Kg		0	0	
☐	X	Silicon	mg/Kg		0	0	

+ Hg

+ Cn

+ Anions

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 21, 2012

Scott Crouch
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.1 OrderNo.: 1210856

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/18/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1210856**
Date Reported: **11/21/2012**

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-31 (0-0.5')
Collection Date: 10/16/2012 3:00:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/21/2012 8:45:13 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/21/2012 8:45:13 AM
Surr: DNOP	103	77.6-140		%REC	1	10/21/2012 8:45:13 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/24/2012 7:17:23 PM
Surr: BFB	91.0	84-116		%REC	1	10/24/2012 7:17:23 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.063	0.033		mg/kg	1	10/23/2012 6:32:17 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 11:38:41 AM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 11:38:41 AM
Barium	350	1.0		mg/Kg	10	10/25/2012 1:29:20 PM
Beryllium	0.56	0.30		mg/Kg	2	10/25/2012 11:38:41 AM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 11:38:41 AM
Chromium	12	0.60		mg/Kg	2	10/25/2012 11:38:41 AM
Cobalt	3.8	0.60		mg/Kg	2	10/25/2012 11:38:41 AM
Iron	13000	500		mg/Kg	500	11/2/2012 6:51:37 AM
Lead	5.2	0.50		mg/Kg	2	10/25/2012 11:38:41 AM
Manganese	420	1.0		mg/Kg	10	10/25/2012 1:29:20 PM
Nickel	8.0	1.0		mg/Kg	2	10/25/2012 11:38:41 AM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 11:38:41 AM
Silver	ND	0.50		mg/Kg	2	10/29/2012 3:19:29 PM
Vanadium	19	5.0		mg/Kg	2	10/25/2012 11:38:41 AM
Zinc	30	5.0		mg/Kg	2	10/25/2012 11:38:41 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Acenaphthylene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Aniline	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Anthracene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Azobenzene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Benz(a)anthracene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Benzoic acid	ND	5.0		mg/Kg	1	10/22/2012 8:48:45 AM
Benzyl alcohol	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-31 (0-0.5')
Collection Date: 10/16/2012 3:00:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	5.0		mg/Kg	1	10/22/2012 8:48:45 AM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Carbazole	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
4-Chloro-3-methylphenol	ND	5.0		mg/Kg	1	10/22/2012 8:48:45 AM
4-Chloroaniline	ND	5.0		mg/Kg	1	10/22/2012 8:48:45 AM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	10/22/2012 8:48:45 AM
2-Chlorophenol	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Chrysene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Di-n-butyl phthalate	ND	5.0		mg/Kg	1	10/22/2012 8:48:45 AM
Di-n-octyl phthalate	ND	4.0		mg/Kg	1	10/22/2012 8:48:45 AM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Dibenzofuran	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
3,3´-Dichlorobenzidine	ND	2.5		mg/Kg	1	10/22/2012 8:48:45 AM
Diethyl phthalate	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Dimethyl phthalate	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	10/22/2012 8:48:45 AM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	10/22/2012 8:48:45 AM
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	1	10/22/2012 8:48:45 AM
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	10/22/2012 8:48:45 AM
2,4-Dinitrotoluene	ND	5.0		mg/Kg	1	10/22/2012 8:48:45 AM
2,6-Dinitrotoluene	ND	5.0		mg/Kg	1	10/22/2012 8:48:45 AM
Fluoranthene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Fluorene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Hexachlorobenzene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Hexachloroethane	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Isophorone	ND	5.0		mg/Kg	1	10/22/2012 8:48:45 AM
1-Methylnaphthalene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
2-Methylnaphthalene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
2-Methylphenol	ND	5.0		mg/Kg	1	10/22/2012 8:48:45 AM
3+4-Methylphenol	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Naphthalene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
2-Nitroaniline	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-31 (0-0.5')
Collection Date: 10/16/2012 3:00:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
4-Nitroaniline	ND	4.0		mg/Kg	1	10/22/2012 8:48:45 AM
Nitrobenzene	ND	5.0		mg/Kg	1	10/22/2012 8:48:45 AM
2-Nitrophenol	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
4-Nitrophenol	ND	2.5		mg/Kg	1	10/22/2012 8:48:45 AM
Pentachlorophenol	ND	4.0		mg/Kg	1	10/22/2012 8:48:45 AM
Phenanthrene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Phenol	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Pyrene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Pyridine	ND	5.0		mg/Kg	1	10/22/2012 8:48:45 AM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	10/22/2012 8:48:45 AM
Surr: 2,4,6-Tribromophenol	93.6	21.3-145		%REC	1	10/22/2012 8:48:45 AM
Surr: 2-Fluorobiphenyl	90.8	20-131		%REC	1	10/22/2012 8:48:45 AM
Surr: 2-Fluorophenol	81.9	11.9-130		%REC	1	10/22/2012 8:48:45 AM
Surr: 4-Terphenyl-d14	119	25.1-149		%REC	1	10/22/2012 8:48:45 AM
Surr: Nitrobenzene-d5	91.2	25.6-137		%REC	1	10/22/2012 8:48:45 AM
Surr: Phenol-d5	94.1	20.3-132		%REC	1	10/22/2012 8:48:45 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00119	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Toluene	0.00295	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Ethylbenzene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Xylenes, Total	0.00320	0.00168		mg/Kg	1	10/18/2012 1:18:41 PM
Methyl tert-butyl ether (MTBE)	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,2,4-Trimethylbenzene	0.00138	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,3,5-Trimethylbenzene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,2-Dichloroethane (EDC)	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,2-Dibromoethane (EDB)	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Naphthalene	ND	0.00168		mg/Kg	1	10/18/2012 1:18:41 PM
1-Methylnaphthalene	ND	0.00335		mg/Kg	1	10/18/2012 1:18:41 PM
2-Methylnaphthalene	ND	0.00335		mg/Kg	1	10/18/2012 1:18:41 PM
Acetone	0.0344	0.00838		mg/Kg	1	10/18/2012 1:18:41 PM
Bromobenzene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Bromodichloromethane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Bromoform	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Bromomethane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
2-Butanone	ND	0.00838		mg/Kg	1	10/18/2012 1:18:41 PM
Carbon tetrachloride	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Chlorobenzene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Chloroethane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-31 (0-0.5')
Collection Date: 10/16/2012 3:00:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Chloromethane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
2-Chlorotoluene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Carbon disulfide	ND	0.00838		mg/Kg	1	10/18/2012 1:18:41 PM
4-Chlorotoluene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
cis-1,2-DCE	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
cis-1,3-Dichloropropene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,2-Dibromo-3-chloropropane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Dibromochloromethane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Dibromomethane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,2-Dichlorobenzene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,3-Dichlorobenzene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,4-Dichlorobenzene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Dichlorodifluoromethane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,1-Dichloroethane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,1-Dichloroethene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,2-Dichloropropane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,3-Dichloropropane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
2,2-Dichloropropane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,1-Dichloropropene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Hexachlorobutadiene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Isopropylbenzene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
4-Isopropyltoluene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Methylene chloride	ND	0.00252		mg/Kg	1	10/18/2012 1:18:41 PM
n-Butylbenzene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
2-Hexanone	ND	0.00838		mg/Kg	1	10/18/2012 1:18:41 PM
n-Propylbenzene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
sec-Butylbenzene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Styrene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
4-Methyl-2-pentanone	ND	0.00838		mg/Kg	1	10/18/2012 1:18:41 PM
tert-Butylbenzene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,1,1,2-Tetrachloroethane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,1,2,2-Tetrachloroethane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Tetrachloroethene (PCE)	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
trans-1,2-DCE	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
trans-1,3-Dichloropropene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,2,3-Trichlorobenzene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,2,4-Trichlorobenzene	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,1,1-Trichloroethane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
1,1,2-Trichloroethane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Trichloroethene (TCE)	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Trichlorofluoromethane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-31 (0-0.5')
Collection Date: 10/16/2012 3:00:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Vinyl chloride	ND	0.000838		mg/Kg	1	10/18/2012 1:18:41 PM
Surr: 1,2-Dichloroethane-d4	90.1	70-130		%REC	1	10/18/2012 1:18:41 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	1	10/18/2012 1:18:41 PM
Surr: Dibromofluoromethane	99.9	70-130		%REC	1	10/18/2012 1:18:41 PM
Surr: Toluene-d8	89.3	70-130		%REC	1	10/18/2012 1:18:41 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-32 (0-0.5')
Collection Date: 10/16/2012 3:40:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	19	9.7		mg/Kg	1	10/21/2012 3:01:01 PM
Motor Oil Range Organics (MRO)	100	48		mg/Kg	1	10/21/2012 3:01:01 PM
Surr: DNOP	106	77.6-140		%REC	1	10/21/2012 3:01:01 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/24/2012 11:07:20 PM
Surr: BFB	86.2	84-116		%REC	1	10/24/2012 11:07:20 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.13	0.033		mg/kg	1	10/23/2012 6:34:06 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 11:43:44 AM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 11:43:44 AM
Barium	600	2.0		mg/Kg	20	10/25/2012 2:44:01 PM
Beryllium	0.64	0.30		mg/Kg	2	10/25/2012 11:43:44 AM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 11:43:44 AM
Chromium	17	0.60		mg/Kg	2	10/25/2012 11:43:44 AM
Cobalt	4.0	0.60		mg/Kg	2	10/25/2012 11:43:44 AM
Iron	14000	500		mg/Kg	500	11/2/2012 6:54:30 AM
Lead	6.3	0.50		mg/Kg	2	10/25/2012 11:43:44 AM
Manganese	440	1.0		mg/Kg	10	10/25/2012 1:34:12 PM
Nickel	13	1.0		mg/Kg	2	10/25/2012 11:43:44 AM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 11:43:44 AM
Silver	ND	0.25		mg/Kg	1	10/29/2012 3:24:30 PM
Vanadium	22	5.0		mg/Kg	2	10/25/2012 11:43:44 AM
Zinc	36	5.0		mg/Kg	2	10/25/2012 11:43:44 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Acenaphthylene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Aniline	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Anthracene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Azobenzene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Benz(a)anthracene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Benzoic acid	ND	5.0		mg/Kg	1	10/23/2012 5:37:35 PM
Benzyl alcohol	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-32 (0-0.5')
Collection Date: 10/16/2012 3:40:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	5.0		mg/Kg	1	10/23/2012 5:37:35 PM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Carbazole	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
4-Chloro-3-methylphenol	ND	5.0		mg/Kg	1	10/23/2012 5:37:35 PM
4-Chloroaniline	ND	5.0		mg/Kg	1	10/23/2012 5:37:35 PM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	10/23/2012 5:37:35 PM
2-Chlorophenol	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Chrysene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Di-n-butyl phthalate	ND	5.0		mg/Kg	1	10/23/2012 5:37:35 PM
Di-n-octyl phthalate	ND	4.0		mg/Kg	1	10/23/2012 5:37:35 PM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Dibenzofuran	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
3,3'-Dichlorobenzidine	ND	2.5		mg/Kg	1	10/23/2012 5:37:35 PM
Diethyl phthalate	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Dimethyl phthalate	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	10/23/2012 5:37:35 PM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	10/23/2012 5:37:35 PM
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	1	10/23/2012 5:37:35 PM
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	10/23/2012 5:37:35 PM
2,4-Dinitrotoluene	ND	5.0		mg/Kg	1	10/23/2012 5:37:35 PM
2,6-Dinitrotoluene	ND	5.0		mg/Kg	1	10/23/2012 5:37:35 PM
Fluoranthene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Fluorene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Hexachlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Hexachloroethane	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Isophorone	ND	5.0		mg/Kg	1	10/23/2012 5:37:35 PM
1-Methylnaphthalene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
2-Methylnaphthalene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
2-Methylphenol	ND	5.0		mg/Kg	1	10/23/2012 5:37:35 PM
3+4-Methylphenol	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Naphthalene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
2-Nitroaniline	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-32 (0-0.5')
Collection Date: 10/16/2012 3:40:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
4-Nitroaniline	ND	4.0		mg/Kg	1	10/23/2012 5:37:35 PM
Nitrobenzene	ND	5.0		mg/Kg	1	10/23/2012 5:37:35 PM
2-Nitrophenol	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
4-Nitrophenol	ND	2.5		mg/Kg	1	10/23/2012 5:37:35 PM
Pentachlorophenol	ND	4.0		mg/Kg	1	10/23/2012 5:37:35 PM
Phenanthrene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Phenol	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Pyrene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Pyridine	ND	5.0		mg/Kg	1	10/23/2012 5:37:35 PM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	10/23/2012 5:37:35 PM
Surr: 2,4,6-Tribromophenol	112	21.3-145		%REC	1	10/23/2012 5:37:35 PM
Surr: 2-Fluorobiphenyl	103	20-131		%REC	1	10/23/2012 5:37:35 PM
Surr: 2-Fluorophenol	99.0	11.9-130		%REC	1	10/23/2012 5:37:35 PM
Surr: 4-Terphenyl-d14	126	25.1-149		%REC	1	10/23/2012 5:37:35 PM
Surr: Nitrobenzene-d5	97.0	25.6-137		%REC	1	10/23/2012 5:37:35 PM
Surr: Phenol-d5	102	20.3-132		%REC	1	10/23/2012 5:37:35 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00140	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Toluene	0.00442	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Ethylbenzene	0.00107	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Xylenes, Total	0.00394	0.00165		mg/Kg	1	10/18/2012 1:49:28 PM
Methyl tert-butyl ether (MTBE)	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,2,4-Trimethylbenzene	0.00179	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,3,5-Trimethylbenzene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,2-Dichloroethane (EDC)	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,2-Dibromoethane (EDB)	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Naphthalene	ND	0.00165		mg/Kg	1	10/18/2012 1:49:28 PM
1-Methylnaphthalene	ND	0.00331		mg/Kg	1	10/18/2012 1:49:28 PM
2-Methylnaphthalene	ND	0.00331		mg/Kg	1	10/18/2012 1:49:28 PM
Acetone	0.0551	0.00827		mg/Kg	1	10/18/2012 1:49:28 PM
Bromobenzene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Bromodichloromethane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Bromoform	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Bromomethane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
2-Butanone	ND	0.00827		mg/Kg	1	10/18/2012 1:49:28 PM
Carbon tetrachloride	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Chlorobenzene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Chloroethane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-32 (0-0.5')
Collection Date: 10/16/2012 3:40:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Chloromethane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
2-Chlorotoluene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Carbon disulfide	ND	0.00827		mg/Kg	1	10/18/2012 1:49:28 PM
4-Chlorotoluene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
cis-1,2-DCE	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
cis-1,3-Dichloropropene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,2-Dibromo-3-chloropropane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Dibromochloromethane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Dibromomethane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,2-Dichlorobenzene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,3-Dichlorobenzene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,4-Dichlorobenzene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Dichlorodifluoromethane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,1-Dichloroethane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,1-Dichloroethene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,2-Dichloropropane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,3-Dichloropropane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
2,2-Dichloropropane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,1-Dichloropropene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Hexachlorobutadiene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Isopropylbenzene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
4-Isopropyltoluene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Methylene chloride	ND	0.00248		mg/Kg	1	10/18/2012 1:49:28 PM
n-Butylbenzene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
2-Hexanone	ND	0.00827		mg/Kg	1	10/18/2012 1:49:28 PM
n-Propylbenzene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
sec-Butylbenzene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Styrene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
4-Methyl-2-pentanone	ND	0.00827		mg/Kg	1	10/18/2012 1:49:28 PM
tert-Butylbenzene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,1,1,2-Tetrachloroethane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,1,2,2-Tetrachloroethane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Tetrachloroethene (PCE)	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
trans-1,2-DCE	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
trans-1,3-Dichloropropene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,2,3-Trichlorobenzene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,2,4-Trichlorobenzene	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,1,1-Trichloroethane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
1,1,2-Trichloroethane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Trichloroethene (TCE)	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Trichlorofluoromethane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-32 (0-0.5')
Collection Date: 10/16/2012 3:40:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Vinyl chloride	ND	0.000827		mg/Kg	1	10/18/2012 1:49:28 PM
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%REC	1	10/18/2012 1:49:28 PM
Surr: 4-Bromofluorobenzene	120	70-130		%REC	1	10/18/2012 1:49:28 PM
Surr: Dibromofluoromethane	108	70-130		%REC	1	10/18/2012 1:49:28 PM
Surr: Toluene-d8	102	70-130		%REC	1	10/18/2012 1:49:28 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-32 (0-0.5') DUP
Collection Date: 10/16/2012 3:40:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	29	10		mg/Kg	1	10/21/2012 4:17:09 PM
Motor Oil Range Organics (MRO)	200	51		mg/Kg	1	10/21/2012 4:17:09 PM
Surr: DNOP	112	77.6-140		%REC	1	10/21/2012 4:17:09 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/24/2012 11:36:04 PM
Surr: BFB	88.3	84-116		%REC	1	10/24/2012 11:36:04 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.13	0.033		mg/kg	1	10/23/2012 6:35:52 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 11:50:31 AM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 11:50:31 AM
Barium	580	2.0		mg/Kg	20	10/25/2012 2:48:50 PM
Beryllium	0.66	0.30		mg/Kg	2	10/25/2012 11:50:31 AM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 11:50:31 AM
Chromium	21	0.60		mg/Kg	2	10/25/2012 11:50:31 AM
Cobalt	5.1	0.60		mg/Kg	2	10/25/2012 11:50:31 AM
Iron	19000	500		mg/Kg	500	11/2/2012 6:57:23 AM
Lead	8.0	0.50		mg/Kg	2	10/25/2012 11:50:31 AM
Manganese	540	2.0		mg/Kg	20	10/25/2012 2:48:50 PM
Nickel	16	1.0		mg/Kg	2	10/25/2012 11:50:31 AM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 11:50:31 AM
Silver	ND	0.50		mg/Kg	2	10/29/2012 3:41:51 PM
Vanadium	28	5.0		mg/Kg	2	10/25/2012 11:50:31 AM
Zinc	43	5.0		mg/Kg	2	10/25/2012 11:50:31 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Acenaphthylene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Aniline	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Anthracene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Azobenzene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Benz(a)anthracene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Benzoic acid	ND	5.0		mg/Kg	1	10/23/2012 6:07:04 PM
Benzyl alcohol	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-32 (0-0.5') DUP
Collection Date: 10/16/2012 3:40:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	5.0		mg/Kg	1	10/23/2012 6:07:04 PM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Carbazole	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
4-Chloro-3-methylphenol	ND	5.0		mg/Kg	1	10/23/2012 6:07:04 PM
4-Chloroaniline	ND	5.0		mg/Kg	1	10/23/2012 6:07:04 PM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	10/23/2012 6:07:04 PM
2-Chlorophenol	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Chrysene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Di-n-butyl phthalate	ND	5.0		mg/Kg	1	10/23/2012 6:07:04 PM
Di-n-octyl phthalate	ND	4.0		mg/Kg	1	10/23/2012 6:07:04 PM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Dibenzofuran	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
3,3'-Dichlorobenzidine	ND	2.5		mg/Kg	1	10/23/2012 6:07:04 PM
Diethyl phthalate	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Dimethyl phthalate	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	10/23/2012 6:07:04 PM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	10/23/2012 6:07:04 PM
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	1	10/23/2012 6:07:04 PM
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	10/23/2012 6:07:04 PM
2,4-Dinitrotoluene	ND	5.0		mg/Kg	1	10/23/2012 6:07:04 PM
2,6-Dinitrotoluene	ND	5.0		mg/Kg	1	10/23/2012 6:07:04 PM
Fluoranthene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Fluorene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Hexachlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Hexachloroethane	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Isophorone	ND	5.0		mg/Kg	1	10/23/2012 6:07:04 PM
1-Methylnaphthalene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
2-Methylnaphthalene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
2-Methylphenol	ND	5.0		mg/Kg	1	10/23/2012 6:07:04 PM
3+4-Methylphenol	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Naphthalene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
2-Nitroaniline	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-32 (0-0.5') DUP
Collection Date: 10/16/2012 3:40:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
4-Nitroaniline	ND	4.0		mg/Kg	1	10/23/2012 6:07:04 PM
Nitrobenzene	ND	5.0		mg/Kg	1	10/23/2012 6:07:04 PM
2-Nitrophenol	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
4-Nitrophenol	ND	2.5		mg/Kg	1	10/23/2012 6:07:04 PM
Pentachlorophenol	ND	4.0		mg/Kg	1	10/23/2012 6:07:04 PM
Phenanthrene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Phenol	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Pyrene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Pyridine	ND	5.0		mg/Kg	1	10/23/2012 6:07:04 PM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	10/23/2012 6:07:04 PM
Surr: 2,4,6-Tribromophenol	95.1	21.3-145		%REC	1	10/23/2012 6:07:04 PM
Surr: 2-Fluorobiphenyl	91.6	20-131		%REC	1	10/23/2012 6:07:04 PM
Surr: 2-Fluorophenol	81.6	11.9-130		%REC	1	10/23/2012 6:07:04 PM
Surr: 4-Terphenyl-d14	120	25.1-149		%REC	1	10/23/2012 6:07:04 PM
Surr: Nitrobenzene-d5	85.6	25.6-137		%REC	1	10/23/2012 6:07:04 PM
Surr: Phenol-d5	86.6	20.3-132		%REC	1	10/23/2012 6:07:04 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00134	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Toluene	0.00384	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Ethylbenzene	0.00105	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Xylenes, Total	0.00404	0.00167		mg/Kg	1	10/18/2012 2:20:20 PM
Methyl tert-butyl ether (MTBE)	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,2,4-Trimethylbenzene	0.00207	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,3,5-Trimethylbenzene	0.000842	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,2-Dichloroethane (EDC)	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,2-Dibromoethane (EDB)	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Naphthalene	ND	0.00167		mg/Kg	1	10/18/2012 2:20:20 PM
1-Methylnaphthalene	ND	0.00333		mg/Kg	1	10/18/2012 2:20:20 PM
2-Methylnaphthalene	ND	0.00333		mg/Kg	1	10/18/2012 2:20:20 PM
Acetone	0.0483	0.00834		mg/Kg	1	10/18/2012 2:20:20 PM
Bromobenzene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Bromodichloromethane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Bromoform	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Bromomethane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
2-Butanone	ND	0.00834		mg/Kg	1	10/18/2012 2:20:20 PM
Carbon tetrachloride	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Chlorobenzene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Chloroethane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-32 (0-0.5') DUP
Collection Date: 10/16/2012 3:40:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Chloromethane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
2-Chlorotoluene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Carbon disulfide	ND	0.00834		mg/Kg	1	10/18/2012 2:20:20 PM
4-Chlorotoluene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
cis-1,2-DCE	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
cis-1,3-Dichloropropene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,2-Dibromo-3-chloropropane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Dibromochloromethane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Dibromomethane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,2-Dichlorobenzene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,3-Dichlorobenzene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,4-Dichlorobenzene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Dichlorodifluoromethane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,1-Dichloroethane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,1-Dichloroethene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,2-Dichloropropane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,3-Dichloropropane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
2,2-Dichloropropane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,1-Dichloropropene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Hexachlorobutadiene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Isopropylbenzene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
4-Isopropyltoluene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Methylene chloride	ND	0.00250		mg/Kg	1	10/18/2012 2:20:20 PM
n-Butylbenzene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
2-Hexanone	ND	0.00834		mg/Kg	1	10/18/2012 2:20:20 PM
n-Propylbenzene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
sec-Butylbenzene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Styrene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
4-Methyl-2-pentanone	ND	0.00834		mg/Kg	1	10/18/2012 2:20:20 PM
tert-Butylbenzene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,1,1,2-Tetrachloroethane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,1,2,2-Tetrachloroethane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Tetrachloroethene (PCE)	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
trans-1,2-DCE	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
trans-1,3-Dichloropropene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,2,3-Trichlorobenzene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,2,4-Trichlorobenzene	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,1,1-Trichloroethane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
1,1,2-Trichloroethane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Trichloroethene (TCE)	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Trichlorofluoromethane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-32 (0-0.5') DUP
Collection Date: 10/16/2012 3:40:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Vinyl chloride	ND	0.000834		mg/Kg	1	10/18/2012 2:20:20 PM
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%REC	1	10/18/2012 2:20:20 PM
Surr: 4-Bromofluorobenzene	126	70-130		%REC	1	10/18/2012 2:20:20 PM
Surr: Dibromofluoromethane	102	70-130		%REC	1	10/18/2012 2:20:20 PM
Surr: Toluene-d8	98.2	70-130		%REC	1	10/18/2012 2:20:20 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-33 (0-0.5')
Collection Date: 10/16/2012 4:03:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	20	9.8		mg/Kg	1	10/21/2012 3:26:23 PM
Motor Oil Range Organics (MRO)	110	49		mg/Kg	1	10/21/2012 3:26:23 PM
Surr: DNOP	106	77.6-140		%REC	1	10/21/2012 3:26:23 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2012 12:04:52 AM
Surr: BFB	90.2	84-116		%REC	1	10/25/2012 12:04:52 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.055	0.033		mg/kg	1	10/23/2012 6:37:39 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 11:55:53 AM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 11:55:53 AM
Barium	680	2.0		mg/Kg	20	10/25/2012 1:52:47 PM
Beryllium	0.64	0.30		mg/Kg	2	10/25/2012 11:55:53 AM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 11:55:53 AM
Chromium	12	0.60		mg/Kg	2	10/25/2012 11:55:53 AM
Cobalt	3.2	0.60		mg/Kg	2	10/25/2012 11:55:53 AM
Iron	13000	500		mg/Kg	500	11/2/2012 7:00:17 AM
Lead	3.7	0.50		mg/Kg	2	10/25/2012 11:55:53 AM
Manganese	800	2.0		mg/Kg	20	10/25/2012 1:52:47 PM
Nickel	8.9	1.0		mg/Kg	2	10/25/2012 11:55:53 AM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 11:55:53 AM
Silver	ND	0.25		mg/Kg	1	10/29/2012 3:47:14 PM
Vanadium	19	5.0		mg/Kg	2	10/25/2012 11:55:53 AM
Zinc	23	5.0		mg/Kg	2	10/25/2012 11:55:53 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Acenaphthylene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Aniline	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Anthracene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Azobenzene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Benz(a)anthracene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Benzoic acid	ND	5.0		mg/Kg	1	10/23/2012 6:36:34 PM
Benzyl alcohol	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-33 (0-0.5')
Collection Date: 10/16/2012 4:03:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	5.0		mg/Kg	1	10/23/2012 6:36:34 PM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Carbazole	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
4-Chloro-3-methylphenol	ND	5.0		mg/Kg	1	10/23/2012 6:36:34 PM
4-Chloroaniline	ND	5.0		mg/Kg	1	10/23/2012 6:36:34 PM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	10/23/2012 6:36:34 PM
2-Chlorophenol	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Chrysene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Di-n-butyl phthalate	ND	5.0		mg/Kg	1	10/23/2012 6:36:34 PM
Di-n-octyl phthalate	ND	4.0		mg/Kg	1	10/23/2012 6:36:34 PM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Dibenzofuran	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
3,3'-Dichlorobenzidine	ND	2.5		mg/Kg	1	10/23/2012 6:36:34 PM
Diethyl phthalate	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Dimethyl phthalate	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	10/23/2012 6:36:34 PM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	10/23/2012 6:36:34 PM
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	1	10/23/2012 6:36:34 PM
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	10/23/2012 6:36:34 PM
2,4-Dinitrotoluene	ND	5.0		mg/Kg	1	10/23/2012 6:36:34 PM
2,6-Dinitrotoluene	ND	5.0		mg/Kg	1	10/23/2012 6:36:34 PM
Fluoranthene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Fluorene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Hexachlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Hexachloroethane	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Isophorone	ND	5.0		mg/Kg	1	10/23/2012 6:36:34 PM
1-Methylnaphthalene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
2-Methylnaphthalene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
2-Methylphenol	ND	5.0		mg/Kg	1	10/23/2012 6:36:34 PM
3+4-Methylphenol	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Naphthalene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
2-Nitroaniline	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-33 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/16/2012 4:03:00 PM
Lab ID: 1210856-004 **Matrix:** SOIL **Received Date:** 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
4-Nitroaniline	ND	4.0		mg/Kg	1	10/23/2012 6:36:34 PM
Nitrobenzene	ND	5.0		mg/Kg	1	10/23/2012 6:36:34 PM
2-Nitrophenol	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
4-Nitrophenol	ND	2.5		mg/Kg	1	10/23/2012 6:36:34 PM
Pentachlorophenol	ND	4.0		mg/Kg	1	10/23/2012 6:36:34 PM
Phenanthrene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Phenol	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Pyrene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Pyridine	ND	5.0		mg/Kg	1	10/23/2012 6:36:34 PM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	10/23/2012 6:36:34 PM
Surr: 2,4,6-Tribromophenol	92.9	21.3-145		%REC	1	10/23/2012 6:36:34 PM
Surr: 2-Fluorobiphenyl	89.4	20-131		%REC	1	10/23/2012 6:36:34 PM
Surr: 2-Fluorophenol	80.5	11.9-130		%REC	1	10/23/2012 6:36:34 PM
Surr: 4-Terphenyl-d14	117	25.1-149		%REC	1	10/23/2012 6:36:34 PM
Surr: Nitrobenzene-d5	85.6	25.6-137		%REC	1	10/23/2012 6:36:34 PM
Surr: Phenol-d5	86.2	20.3-132		%REC	1	10/23/2012 6:36:34 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00146	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Toluene	0.00437	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Ethylbenzene	0.00103	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Xylenes, Total	0.00362	0.00180		mg/Kg	1	10/18/2012 2:51:16 PM
Methyl tert-butyl ether (MTBE)	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,2,4-Trimethylbenzene	0.00116	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,3,5-Trimethylbenzene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,2-Dichloroethane (EDC)	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,2-Dibromoethane (EDB)	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Naphthalene	ND	0.00180		mg/Kg	1	10/18/2012 2:51:16 PM
1-Methylnaphthalene	ND	0.00359		mg/Kg	1	10/18/2012 2:51:16 PM
2-Methylnaphthalene	ND	0.00359		mg/Kg	1	10/18/2012 2:51:16 PM
Acetone	0.0526	0.00899		mg/Kg	1	10/18/2012 2:51:16 PM
Bromobenzene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Bromodichloromethane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Bromoform	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Bromomethane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
2-Butanone	ND	0.00899		mg/Kg	1	10/18/2012 2:51:16 PM
Carbon tetrachloride	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Chlorobenzene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Chloroethane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-33 (0-0.5')
Collection Date: 10/16/2012 4:03:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Chloromethane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
2-Chlorotoluene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Carbon disulfide	ND	0.00899		mg/Kg	1	10/18/2012 2:51:16 PM
4-Chlorotoluene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
cis-1,2-DCE	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
cis-1,3-Dichloropropene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,2-Dibromo-3-chloropropane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Dibromochloromethane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Dibromomethane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,2-Dichlorobenzene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,3-Dichlorobenzene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,4-Dichlorobenzene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Dichlorodifluoromethane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,1-Dichloroethane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,1-Dichloroethene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,2-Dichloropropane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,3-Dichloropropane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
2,2-Dichloropropane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,1-Dichloropropene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Hexachlorobutadiene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Isopropylbenzene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
4-Isopropyltoluene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Methylene chloride	ND	0.00270		mg/Kg	1	10/18/2012 2:51:16 PM
n-Butylbenzene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
2-Hexanone	ND	0.00899		mg/Kg	1	10/18/2012 2:51:16 PM
n-Propylbenzene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
sec-Butylbenzene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Styrene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
4-Methyl-2-pentanone	ND	0.00899		mg/Kg	1	10/18/2012 2:51:16 PM
tert-Butylbenzene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,1,1,2-Tetrachloroethane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,1,2,2-Tetrachloroethane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Tetrachloroethene (PCE)	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
trans-1,2-DCE	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
trans-1,3-Dichloropropene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,2,3-Trichlorobenzene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,2,4-Trichlorobenzene	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,1,1-Trichloroethane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
1,1,2-Trichloroethane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Trichloroethene (TCE)	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Trichlorofluoromethane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-33 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/16/2012 4:03:00 PM
Lab ID: 1210856-004 **Matrix:** SOIL **Received Date:** 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Vinyl chloride	ND	0.000899		mg/Kg	1	10/18/2012 2:51:16 PM
Surr: 1,2-Dichloroethane-d4	88.6	70-130		%REC	1	10/18/2012 2:51:16 PM
Surr: 4-Bromofluorobenzene	99.4	70-130		%REC	1	10/18/2012 2:51:16 PM
Surr: Dibromofluoromethane	95.7	70-130		%REC	1	10/18/2012 2:51:16 PM
Surr: Toluene-d8	86.1	70-130		%REC	1	10/18/2012 2:51:16 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-34 (0-0.5')
Collection Date: 10/16/2012 4:30:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/21/2012 9:35:22 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/21/2012 9:35:22 AM
Surr: DNOP	106	77.6-140		%REC	1	10/21/2012 9:35:22 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2012 1:30:57 AM
Surr: BFB	90.7	84-116		%REC	1	10/25/2012 1:30:57 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.14	0.033		mg/kg	1	10/23/2012 6:39:27 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 12:09:46 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 12:09:46 PM
Barium	740	2.0		mg/Kg	20	10/25/2012 1:57:39 PM
Beryllium	0.52	0.30		mg/Kg	2	10/25/2012 12:09:46 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 12:09:46 PM
Chromium	12	0.60		mg/Kg	2	10/25/2012 12:09:46 PM
Cobalt	2.7	0.60		mg/Kg	2	10/25/2012 12:09:46 PM
Iron	9800	500		mg/Kg	500	11/2/2012 7:03:09 AM
Lead	2.5	0.50		mg/Kg	2	10/25/2012 12:09:46 PM
Manganese	520	2.0		mg/Kg	20	10/25/2012 1:57:39 PM
Nickel	7.5	1.0		mg/Kg	2	10/25/2012 12:09:46 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 12:09:46 PM
Silver	ND	0.25		mg/Kg	1	10/29/2012 3:52:27 PM
Vanadium	18	5.0		mg/Kg	2	10/25/2012 12:09:46 PM
Zinc	28	5.0		mg/Kg	2	10/25/2012 12:09:46 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Acenaphthylene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Aniline	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Anthracene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Azobenzene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/23/2012 7:06:02 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-34 (0-0.5')
Collection Date: 10/16/2012 4:30:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/23/2012 7:06:02 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Carbazole	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/23/2012 7:06:02 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/23/2012 7:06:02 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	10/23/2012 7:06:02 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Chrysene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/23/2012 7:06:02 PM
Di-n-octyl phthalate	ND	2.0		mg/Kg	1	10/23/2012 7:06:02 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Dibenzofuran	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	10/23/2012 7:06:02 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/23/2012 7:06:02 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/23/2012 7:06:02 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/23/2012 7:06:02 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/23/2012 7:06:02 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/23/2012 7:06:02 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/23/2012 7:06:02 PM
Fluoranthene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Fluorene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Hexachloroethane	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Isophorone	ND	2.5		mg/Kg	1	10/23/2012 7:06:02 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/23/2012 7:06:02 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Naphthalene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-34 (0-0.5')
Collection Date: 10/16/2012 4:30:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	10/23/2012 7:06:02 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/23/2012 7:06:02 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	10/23/2012 7:06:02 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/23/2012 7:06:02 PM
Phenanthrene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Phenol	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Pyrene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Pyridine	ND	2.5		mg/Kg	1	10/23/2012 7:06:02 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/23/2012 7:06:02 PM
Surr: 2,4,6-Tribromophenol	90.0	21.3-145		%REC	1	10/23/2012 7:06:02 PM
Surr: 2-Fluorobiphenyl	90.4	20-131		%REC	1	10/23/2012 7:06:02 PM
Surr: 2-Fluorophenol	72.4	11.9-130		%REC	1	10/23/2012 7:06:02 PM
Surr: 4-Terphenyl-d14	96.6	25.1-149		%REC	1	10/23/2012 7:06:02 PM
Surr: Nitrobenzene-d5	92.6	25.6-137		%REC	1	10/23/2012 7:06:02 PM
Surr: Phenol-d5	77.7	20.3-132		%REC	1	10/23/2012 7:06:02 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00184	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Toluene	0.00869	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Ethylbenzene	0.00259	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Xylenes, Total	0.00953	0.00212		mg/Kg	1	10/18/2012 3:22:14 PM
Methyl tert-butyl ether (MTBE)	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,2,4-Trimethylbenzene	0.00524	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,3,5-Trimethylbenzene	0.00196	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,2-Dichloroethane (EDC)	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,2-Dibromoethane (EDB)	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Naphthalene	ND	0.00212		mg/Kg	1	10/18/2012 3:22:14 PM
1-Methylnaphthalene	ND	0.00425		mg/Kg	1	10/18/2012 3:22:14 PM
2-Methylnaphthalene	ND	0.00425		mg/Kg	1	10/18/2012 3:22:14 PM
Acetone	0.0654	0.0106		mg/Kg	1	10/18/2012 3:22:14 PM
Bromobenzene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Bromodichloromethane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Bromoform	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Bromomethane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
2-Butanone	ND	0.0106		mg/Kg	1	10/18/2012 3:22:14 PM
Carbon tetrachloride	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Chlorobenzene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Chloroethane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-34 (0-0.5')
Collection Date: 10/16/2012 4:30:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Chloromethane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
2-Chlorotoluene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Carbon disulfide	ND	0.0106		mg/Kg	1	10/18/2012 3:22:14 PM
4-Chlorotoluene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
cis-1,2-DCE	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
cis-1,3-Dichloropropene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,2-Dibromo-3-chloropropane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Dibromochloromethane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Dibromomethane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,2-Dichlorobenzene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,3-Dichlorobenzene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,4-Dichlorobenzene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Dichlorodifluoromethane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,1-Dichloroethane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,1-Dichloroethene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,2-Dichloropropane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,3-Dichloropropane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
2,2-Dichloropropane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,1-Dichloropropene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Hexachlorobutadiene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Isopropylbenzene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
4-Isopropyltoluene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Methylene chloride	ND	0.00318		mg/Kg	1	10/18/2012 3:22:14 PM
n-Butylbenzene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
2-Hexanone	ND	0.0106		mg/Kg	1	10/18/2012 3:22:14 PM
n-Propylbenzene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
sec-Butylbenzene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Styrene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
4-Methyl-2-pentanone	ND	0.0106		mg/Kg	1	10/18/2012 3:22:14 PM
tert-Butylbenzene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,1,1,2-Tetrachloroethane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,1,2,2-Tetrachloroethane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Tetrachloroethene (PCE)	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
trans-1,2-DCE	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
trans-1,3-Dichloropropene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,2,3-Trichlorobenzene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,2,4-Trichlorobenzene	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,1,1-Trichloroethane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
1,1,2-Trichloroethane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Trichloroethene (TCE)	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Trichlorofluoromethane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-34 (0-0.5')
Collection Date: 10/16/2012 4:30:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Vinyl chloride	ND	0.00106		mg/Kg	1	10/18/2012 3:22:14 PM
Surr: 1,2-Dichloroethane-d4	93.1	70-130		%REC	1	10/18/2012 3:22:14 PM
Surr: 4-Bromofluorobenzene	129	70-130		%REC	1	10/18/2012 3:22:14 PM
Surr: Dibromofluoromethane	99.7	70-130		%REC	1	10/18/2012 3:22:14 PM
Surr: Toluene-d8	93.7	70-130		%REC	1	10/18/2012 3:22:14 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-36 (0-0.5')
Collection Date: 10/16/2012 5:00:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	56	9.6		mg/Kg	1	10/21/2012 3:51:46 PM
Motor Oil Range Organics (MRO)	150	48		mg/Kg	1	10/21/2012 3:51:46 PM
Surr: DNOP	112	77.6-140		%REC	1	10/21/2012 3:51:46 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2012 12:33:35 AM
Surr: BFB	91.0	84-116		%REC	1	10/25/2012 12:33:35 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.20	0.033		mg/kg	1	10/23/2012 6:44:46 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 12:14:48 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 12:14:48 PM
Barium	690	2.0		mg/Kg	20	10/25/2012 2:04:20 PM
Beryllium	0.66	0.30		mg/Kg	2	10/25/2012 12:14:48 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 12:14:48 PM
Chromium	21	0.60		mg/Kg	2	10/25/2012 12:14:48 PM
Cobalt	4.3	0.60		mg/Kg	2	10/25/2012 12:14:48 PM
Iron	16000	500		mg/Kg	500	11/2/2012 7:06:02 AM
Lead	6.8	0.50		mg/Kg	2	10/25/2012 12:14:48 PM
Manganese	580	2.0		mg/Kg	20	10/25/2012 2:04:20 PM
Nickel	12	1.0		mg/Kg	2	10/25/2012 12:14:48 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 12:14:48 PM
Silver	ND	0.50		mg/Kg	2	10/29/2012 3:57:34 PM
Vanadium	20	5.0		mg/Kg	2	10/25/2012 12:14:48 PM
Zinc	50	5.0		mg/Kg	2	10/25/2012 12:14:48 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Acenaphthylene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Aniline	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Anthracene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Azobenzene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Benz(a)anthracene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Benzoic acid	ND	5.0		mg/Kg	1	10/23/2012 7:35:28 PM
Benzyl alcohol	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-36 (0-0.5')
Collection Date: 10/16/2012 5:00:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	5.0		mg/Kg	1	10/23/2012 7:35:28 PM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Carbazole	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
4-Chloro-3-methylphenol	ND	5.0		mg/Kg	1	10/23/2012 7:35:28 PM
4-Chloroaniline	ND	5.0		mg/Kg	1	10/23/2012 7:35:28 PM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	10/23/2012 7:35:28 PM
2-Chlorophenol	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Chrysene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Di-n-butyl phthalate	ND	5.0		mg/Kg	1	10/23/2012 7:35:28 PM
Di-n-octyl phthalate	ND	4.0		mg/Kg	1	10/23/2012 7:35:28 PM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Dibenzofuran	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
3,3'-Dichlorobenzidine	ND	2.5		mg/Kg	1	10/23/2012 7:35:28 PM
Diethyl phthalate	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Dimethyl phthalate	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	10/23/2012 7:35:28 PM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	10/23/2012 7:35:28 PM
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	1	10/23/2012 7:35:28 PM
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	10/23/2012 7:35:28 PM
2,4-Dinitrotoluene	ND	5.0		mg/Kg	1	10/23/2012 7:35:28 PM
2,6-Dinitrotoluene	ND	5.0		mg/Kg	1	10/23/2012 7:35:28 PM
Fluoranthene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Fluorene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Hexachlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Hexachloroethane	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Isophorone	ND	5.0		mg/Kg	1	10/23/2012 7:35:28 PM
1-Methylnaphthalene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
2-Methylnaphthalene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
2-Methylphenol	ND	5.0		mg/Kg	1	10/23/2012 7:35:28 PM
3+4-Methylphenol	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Naphthalene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
2-Nitroaniline	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-36 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/16/2012 5:00:00 PM
Lab ID: 1210856-006 **Matrix:** SOIL **Received Date:** 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
4-Nitroaniline	ND	4.0		mg/Kg	1	10/23/2012 7:35:28 PM
Nitrobenzene	ND	5.0		mg/Kg	1	10/23/2012 7:35:28 PM
2-Nitrophenol	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
4-Nitrophenol	ND	2.5		mg/Kg	1	10/23/2012 7:35:28 PM
Pentachlorophenol	ND	4.0		mg/Kg	1	10/23/2012 7:35:28 PM
Phenanthrene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Phenol	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Pyrene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Pyridine	ND	5.0		mg/Kg	1	10/23/2012 7:35:28 PM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	10/23/2012 7:35:28 PM
Surr: 2,4,6-Tribromophenol	99.4	21.3-145		%REC	1	10/23/2012 7:35:28 PM
Surr: 2-Fluorobiphenyl	93.4	20-131		%REC	1	10/23/2012 7:35:28 PM
Surr: 2-Fluorophenol	84.2	11.9-130		%REC	1	10/23/2012 7:35:28 PM
Surr: 4-Terphenyl-d14	114	25.1-149		%REC	1	10/23/2012 7:35:28 PM
Surr: Nitrobenzene-d5	92.8	25.6-137		%REC	1	10/23/2012 7:35:28 PM
Surr: Phenol-d5	92.1	20.3-132		%REC	1	10/23/2012 7:35:28 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00251	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Toluene	0.00652	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Ethylbenzene	0.00147	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Xylenes, Total	0.00610	0.00189		mg/Kg	1	10/19/2012 12:06:15 PM
Methyl tert-butyl ether (MTBE)	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,2,4-Trimethylbenzene	0.00313	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,3,5-Trimethylbenzene	0.00115	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,2-Dichloroethane (EDC)	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,2-Dibromoethane (EDB)	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Naphthalene	ND	0.00189		mg/Kg	1	10/19/2012 12:06:15 PM
1-Methylnaphthalene	ND	0.00378		mg/Kg	1	10/19/2012 12:06:15 PM
2-Methylnaphthalene	ND	0.00378		mg/Kg	1	10/19/2012 12:06:15 PM
Acetone	0.0535	0.00945		mg/Kg	1	10/19/2012 12:06:15 PM
Bromobenzene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Bromodichloromethane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Bromoform	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Bromomethane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
2-Butanone	ND	0.00945		mg/Kg	1	10/19/2012 12:06:15 PM
Carbon tetrachloride	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Chlorobenzene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Chloroethane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210856-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-36 (0-0.5')
Collection Date: 10/16/2012 5:00:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Chloromethane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
2-Chlorotoluene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Carbon disulfide	ND	0.00945		mg/Kg	1	10/19/2012 12:06:15 PM
4-Chlorotoluene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
cis-1,2-DCE	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
cis-1,3-Dichloropropene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,2-Dibromo-3-chloropropane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Dibromochloromethane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Dibromomethane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,2-Dichlorobenzene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,3-Dichlorobenzene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,4-Dichlorobenzene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Dichlorodifluoromethane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,1-Dichloroethane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,1-Dichloroethene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,2-Dichloropropane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,3-Dichloropropane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
2,2-Dichloropropane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,1-Dichloropropene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Hexachlorobutadiene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Isopropylbenzene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
4-Isopropyltoluene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Methylene chloride	ND	0.00284		mg/Kg	1	10/19/2012 12:06:15 PM
n-Butylbenzene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
2-Hexanone	ND	0.00945		mg/Kg	1	10/19/2012 12:06:15 PM
n-Propylbenzene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
sec-Butylbenzene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Styrene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
4-Methyl-2-pentanone	ND	0.00945		mg/Kg	1	10/19/2012 12:06:15 PM
tert-Butylbenzene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,1,1,2-Tetrachloroethane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,1,2,2-Tetrachloroethane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Tetrachloroethene (PCE)	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
trans-1,2-DCE	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
trans-1,3-Dichloropropene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,2,3-Trichlorobenzene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,2,4-Trichlorobenzene	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,1,1-Trichloroethane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
1,1,2-Trichloroethane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Trichloroethene (TCE)	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Trichlorofluoromethane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-36 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/16/2012 5:00:00 PM
Lab ID: 1210856-006 **Matrix:** SOIL **Received Date:** 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Vinyl chloride	ND	0.000945		mg/Kg	1	10/19/2012 12:06:15 PM
Surr: 1,2-Dichloroethane-d4	93.3	70-130		%REC	1	10/19/2012 12:06:15 PM
Surr: 4-Bromofluorobenzene	133	70-130	S	%REC	1	10/19/2012 12:06:15 PM
Surr: Dibromofluoromethane	107	70-130		%REC	1	10/19/2012 12:06:15 PM
Surr: Toluene-d8	107	70-130		%REC	1	10/19/2012 12:06:15 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	121019045
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1210856
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	121019045-001	**Sampling Date**	10/16/2012	**Date/Time Received**	10/19/2012 1:14 PM
Client Sample ID	1210856-001D / SWMU 1-31 (0-0.5)	**Sampling Time**	3:00 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.256	mg/Kg	0.252	10/30/2012	CRW	EPA 335.4	
%moisture	1.4	Percent		10/30/2012	TGT	%moisture	

Sample Number	121019045-002	**Sampling Date**	10/16/2012	**Date/Time Received**	10/19/2012 1:14 PM
Client Sample ID	1210856-002D / SWMU 1-32 (0-0.5)	**Sampling Time**	3:40 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.247	10/30/2012	CRW	EPA 335.4	
%moisture	1	Percent		10/30/2012	TGT	%moisture	

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	121019045
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1210856
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	121019045-003	**Sampling Date**	10/16/2012	**Date/Time Received**	10/19/2012 1:14 PM
Client Sample ID	1210856-003D / SWMU 1-32 (0-0.5) DUP	**Sampling Time**	3:40 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.253	10/30/2012	CRW	EPA 335.4	
%moisture	1.5	Percent		10/30/2012	TGT	%moisture	

Sample Number	121019045-004	**Sampling Date**	10/16/2012	**Date/Time Received**	10/19/2012 1:14 PM
Client Sample ID	1210856-004D / SWMU 1-33 (0-0.5)	**Sampling Time**	4:03 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.243	10/30/2012	CRW	EPA 335.4	
%moisture	2.2	Percent		10/30/2012	TGT	%moisture	

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	121019045
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1210856
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	121019045-005	**Sampling Date**	10/16/2012	**Date/Time Received**	10/19/2012 1:14 PM
Client Sample ID	1210856-005D / SWMU 1-34 (0-0.5)	**Sampling Time**	4:30 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.251	10/30/2012	CRW	EPA 335.4	
%moisture	1.6	Percent		10/30/2012	TGT	%moisture	

Sample Number	121019045-006	**Sampling Date**	10/16/2012	**Date/Time Received**	10/19/2012 1:14 PM
Client Sample ID	1210856-006D / SWMU 1-36 (0-0.5)	**Sampling Time**	5:00 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.663	mg/Kg	0.255	10/30/2012	CRW	EPA 335.4	
%moisture	1.5	Percent		10/30/2012	TGT	%moisture	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87693; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210856**

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4369**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4369**	RunNo: **6325**
Prep Date: **10/17/2012**	Analysis Date: **10/18/2012**	SeqNo: **182210** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		102	77.6	140			

Sample ID **LCS-4369**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4369**	RunNo: **6325**
Prep Date: **10/17/2012**	Analysis Date: **10/18/2012**	SeqNo: **182211** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		87.6	77.6	140			

Sample ID **MB-4397**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4397**	RunNo: **6325**
Prep Date: **10/18/2012**	Analysis Date: **10/18/2012**	SeqNo: **182283** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		103	77.6	140			

Sample ID **LCS-4397**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4397**	RunNo: **6325**
Prep Date: **10/18/2012**	Analysis Date: **10/18/2012**	SeqNo: **182284** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	0	111	52.6	130			
Surr: DNOP	4.3		5.000		86.9	77.6	140			

Sample ID **MB-4404**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4404**	RunNo: **6356**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **182984** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		95.6	77.6	140			

Sample ID **LCS-4404**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4404**	RunNo: **6356**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **182985** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.3	77.6	140			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210856**

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	**1210819-001AMS**	SampType: **MS**			TestCode: **EPA Method 8015B: Diesel Range Organics**					
Client ID:	**BatchQC**	Batch ID: **4404**			RunNo: **6356**					
Prep Date:	**10/18/2012**	Analysis Date: **10/19/2012**			SeqNo: **183001**		Units: **%REC**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		4.7		5.899		79.7	77.6	140			

Sample ID	**1210819-001AMSD**	SampType: **MSD**			TestCode: **EPA Method 8015B: Diesel Range Organics**					
Client ID:	**BatchQC**	Batch ID: **4404**			RunNo: **6356**					
Prep Date:	**10/18/2012**	Analysis Date: **10/19/2012**			SeqNo: **183002**		Units: **%REC**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP		4.9		6.148		79.2	77.6	140	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210856**

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **R6457**	RunNo: **6457**
Prep Date:	Analysis Date: **10/24/2012**	SeqNo: **186219** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		91.7	84	116			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R6457**	RunNo: **6457**
Prep Date:	Analysis Date: **10/24/2012**	SeqNo: **186225** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.5	74	117			
Surr: BFB	930		1000		93.1	84	116			

Sample ID **1210811-011BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6457**	RunNo: **6457**
Prep Date:	Analysis Date: **10/24/2012**	SeqNo: **186249** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	5.0	15.90	0	110	70	130	12.7	22.1	
Surr: BFB	590		636.0		93.2	84	116	0	0	

Sample ID **1210811-011BMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6457**	RunNo: **6487**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187647** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	15	5.0	15.91	0	96.6	70	130			
Surr: BFB	650		636.4		102	84	116			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210856**

21-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4393**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4393**	RunNo: **6360**
Prep Date: **10/18/2012**	Analysis Date: **10/18/2012**	SeqNo: **182928** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
Naphthalene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
anone	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								

lifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1210856**

Hall Environmental Analysis Laboratory, Inc.

21-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **mb-4393** SampType: **MBLK** TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS** Batch ID: **4393** RunNo: **6360**
Prep Date: **10/18/2012** Analysis Date: **10/18/2012** SeqNo: **182928** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	46.1		50.00		92.1	70	130			
Surr: 4-Bromofluorobenzene	44.8		50.00		89.6	70	130			
Surr: Dibromofluoromethane	53.0		50.00		106	70	130			
Surr: Toluene-d8	42.4		50.00		84.8	70	130			

Sample ID **lcs-4393** SampType: **LCS** TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS** Batch ID: **4393** RunNo: **6360**
Prep Date: **10/18/2012** Analysis Date: **10/18/2012** SeqNo: **182930** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	8.87	1.00	10.00	0	88.7	60	140			
Toluene	8.50	1.00	10.00	0	85.0	60	140			
Chlorobenzene	9.38	1.00	10.00	0	93.8	60	140			
1,1-Dichloroethene	11.0	1.00	10.00	0	110	60	140			
Trichloroethene (TCE)	7.70	1.00	10.00	0	77.0	60	140			
Surr: 1,2-Dichloroethane-d4	44.9		50.00		89.8	70	130			
Surr: 4-Bromofluorobenzene	40.9		50.00		81.7	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210856**

21-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4393**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4393**	RunNo: **6360**
Prep Date: **10/18/2012**	Analysis Date: **10/18/2012**	SeqNo: **182930** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	50.4		50.00		101	70	130			
Surr: Toluene-d8	41.1		50.00		82.2	70	130			

Sample ID **mb-4419**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4419**	RunNo: **6365**
Prep Date: **10/19/2012**	Analysis Date: **10/19/2012**	SeqNo: **183060** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
halene	ND	0.00200								
ethylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
2-Butanone	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1210856**

Hall Environmental Analysis Laboratory, Inc.

21-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **mb-4419**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4419**	RunNo: **6365**
Prep Date: **10/19/2012**	Analysis Date: **10/19/2012**	SeqNo: **183060** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	0.00320	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	43.7		50.00		87.4	70	130			
Surr: 4-Bromofluorobenzene	43.0		50.00		85.9	70	130			
Surr: Dibromofluoromethane	50.0		50.00		100	70	130			
Surr: Toluene-d8	51.0		50.00		102	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210856**

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4419**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4419**	RunNo: **6365**
Prep Date: **10/19/2012**	Analysis Date: **10/19/2012**	SeqNo: **183062** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	11.7	1.00	12.50	0	93.9	60	140			
Toluene	10.2	1.00	12.50	0	82.0	60	140			
Chlorobenzene	11.9	1.00	12.50	0	94.9	60	140			
1,1-Dichloroethene	14.5	1.00	12.50	0	116	60	140			
Trichloroethene (TCE)	9.39	1.00	12.50	0	75.1	60	140			
Surr: 1,2-Dichloroethane-d4	47.4		50.00		94.9	70	130			
Surr: 4-Bromofluorobenzene	41.6		50.00		83.2	70	130			
Surr: Dibromofluoromethane	46.8		50.00		93.6	70	130			
Surr: Toluene-d8	46.1		50.00		92.3	70	130			

lifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1210856**

Hall Environmental Analysis Laboratory, Inc.

21-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **mb-4400**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4400**	RunNo: **6384**
Prep Date: **10/18/2012**	Analysis Date: **10/21/2012**	SeqNo: **183689** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210856**

21-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4400**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4400**	RunNo: **6384**
Prep Date: **10/18/2012**	Analysis Date: **10/21/2012**	SeqNo: **183689** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
ıaniline	ND	0.40								
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.0		3.330		89.4	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.670		94.4	20	131			
Surr: 2-Fluorophenol	2.9		3.330		88.5	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		79.3	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.670		99.1	25.6	137			
Surr: Phenol-d5	3.1		3.330		91.7	20.3	132			

Sample ID **lcs-4400**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4400**	RunNo: **6384**
Prep Date: **10/18/2012**	Analysis Date: **10/21/2012**	SeqNo: **183690** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210856**

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4400**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4400**	RunNo: **6384**
Prep Date: **10/18/2012**	Analysis Date: **10/21/2012**	SeqNo: **183690** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.4	0.20	1.670	0	84.0	49.7	98.1			
4-Chloro-3-methylphenol	2.7	0.50	3.330	0	81.7	43.8	89.1			
2-Chlorophenol	2.5	0.20	3.330	0	76.1	41.1	96.9			
1,4-Dichlorobenzene	1.3	0.20	1.670	0	75.4	41	97.4			
2,4-Dinitrotoluene	1.5	0.50	1.670	0	89.7	44.4	104			
N-Nitrosodi-n-propylamine	1.4	0.20	1.670	0	83.6	39.1	86.9			
4-Nitrophenol	2.5	0.25	3.330	0	74.6	44.2	107			
Pentachlorophenol	2.1	0.40	3.330	0	64.2	36.2	80			
Phenol	2.5	0.20	3.330	0	74.2	42.7	92.7			
Pyrene	1.3	0.20	1.670	0	76.3	34.7	98.8			
1,2,4-Trichlorobenzene	1.4	0.20	1.670	0	85.3	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.6		3.330		109	21.3	145			
Surr: 2-Fluorobiphenyl	1.8		1.670		109	20	131			
Surr: 2-Fluorophenol	3.1		3.330		91.8	11.9	130			
Surr: 4-Terphenyl-d14	1.5		1.670		87.1	25.1	149			
Surr: Nitrobenzene-d5	1.8		1.670		108	25.6	137			
Surr: Phenol-d5	3.2		3.330		95.9	20.3	132			

Sample ID **1210811-002CMS**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **BatchQC**	Batch ID: **4400**	RunNo: **6384**
Prep Date: **10/18/2012**	Analysis Date: **10/22/2012**	SeqNo: **183711** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.673	0	71.4	25.6	142			
4-Chloro-3-methylphenol	2.4	0.50	3.337	0	71.1	63.7	100			
2-Chlorophenol	2.4	0.20	3.337	0	72.7	22.2	126			
1,4-Dichlorobenzene	1.2	0.20	1.673	0	70.8	12.4	115			
2,4-Dinitrotoluene	1.3	0.50	1.673	0	78.0	14.9	142			
N-Nitrosodi-n-propylamine	1.4	0.20	1.673	0	81.4	13.9	136			
4-Nitrophenol	2.4	0.25	3.337	0.09450	69.3	36.7	130			
Pentachlorophenol	2.2	0.40	3.337	0	65.2	15.8	113			
Phenol	2.3	0.20	3.337	0	69.9	25.1	124			
Pyrene	1.1	0.20	1.673	0	68.6	35.8	124			
1,2,4-Trichlorobenzene	1.4	0.20	1.673	0	84.8	30	113			
Surr: 2,4,6-Tribromophenol	3.0		3.337		89.9	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.673		88.8	20	131			
Surr: 2-Fluorophenol	2.7		3.337		80.1	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.673		76.2	25.1	149			
Surr: Nitrobenzene-d5	1.8		1.673		105	25.6	137			
Surr: Phenol-d5	3.0		3.337		89.7	20.3	132			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210856**

21-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210811-002CMSD** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **BatchQC** Batch ID: **4400** RunNo: **6384**

Prep Date: **10/18/2012** Analysis Date: **10/22/2012** SeqNo: **183712** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.674	0	73.4	25.6	142	2.79	22	
4-Chloro-3-methylphenol	2.3	0.50	3.338	0	68.2	63.7	100	3.99	27.3	
2-Chlorophenol	2.4	0.20	3.338	0	71.5	22.2	126	1.58	26.3	
1,4-Dichlorobenzene	1.1	0.20	1.674	0	66.1	12.4	115	6.82	27.4	
2,4-Dinitrotoluene	1.3	0.50	1.674	0	80.4	14.9	142	3.08	27.4	
N-Nitrosodi-n-propylamine	1.3	0.20	1.674	0	75.8	13.9	136	7.08	22.6	
4-Nitrophenol	2.5	0.25	3.338	0.09450	73.3	36.7	130	5.48	20	
Pentachlorophenol	2.1	0.40	3.338	0	62.8	15.8	113	3.74	27.1	
Phenol	2.1	0.20	3.338	0	64.0	25.1	124	8.86	32.2	
Pyrene	1.2	0.20	1.674	0	71.6	35.8	124	4.33	29.5	
1,2,4-Trichlorobenzene	1.4	0.20	1.674	0	81.2	30	113	4.27	27.8	
Surr: 2,4,6-Tribromophenol	2.8		3.338		83.7	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.5		1.674		90.7	20	131	0	0	
Surr: 2-Fluorophenol	2.6		3.338		79.2	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.3		1.674		76.3	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.6		1.674		96.8	25.6	137	0	0	
Surr: Phenol-d5	2.9		3.338		85.8	20.3	132	0	0	

Sample ID **lcs-4422** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS** Batch ID: **4422** RunNo: **6445**

Prep Date: **10/19/2012** Analysis Date: **10/23/2012** SeqNo: **185414** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	74.7	49.7	98.1			
4-Chloro-3-methylphenol	2.6	0.50	3.330	0	76.9	43.8	89.1			
2-Chlorophenol	2.5	0.20	3.330	0	75.3	41.1	96.9			
1,4-Dichlorobenzene	1.3	0.20	1.670	0	78.0	41	97.4			
2,4-Dinitrotoluene	1.3	0.50	1.670	0	79.3	44.4	104			
N-Nitrosodi-n-propylamine	1.4	0.20	1.670	0	83.1	39.1	86.9			
4-Nitrophenol	2.4	0.25	3.330	0	73.5	44.2	107			
Pentachlorophenol	2.1	0.40	3.330	0	61.6	36.2	80			
Phenol	2.4	0.20	3.330	0	72.5	42.7	92.7			
Pyrene	1.3	0.20	1.670	0	77.3	34.7	98.8			
1,2,4-Trichlorobenzene	1.5	0.20	1.670	0	91.6	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.4		3.330		103	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.670		95.5	20	131			
Surr: 2-Fluorophenol	2.8		3.330		83.7	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		79.6	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.670		99.9	25.6	137			
Surr: Phenol-d5	3.0		3.330		89.0	20.3	132			

ifiers:

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH greater than 2

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210856**

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4422**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210856**

21-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4422**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
›aniline	ND	0.40								
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.9		3.330		117	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.670		98.4	20	131			
Surr: 2-Fluorophenol	3.1		3.330		91.6	11.9	130			
Surr: 4-Terphenyl-d14	1.5		1.670		91.7	25.1	149			
Surr: Nitrobenzene-d5	1.8		1.670		109	25.6	137			
Surr: Phenol-d5	3.2		3.330		96.3	20.3	132			

Sample ID **1210858-004Cms**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **BatchQC**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185433** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210856**

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210858-004Cms** SampType: **MS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **BatchQC** Batch ID: **4422** RunNo: **6445**

Prep Date: **10/19/2012** Analysis Date: **10/23/2012** SeqNo: **185433** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.659	0	69.3	25.6	142			
4-Chloro-3-methylphenol	2.2	0.50	3.309	0	67.6	63.7	100			
2-Chlorophenol	2.0	0.20	3.309	0	61.7	22.2	126			
1,4-Dichlorobenzene	1.1	0.20	1.659	0	63.6	12.4	115			
2,4-Dinitrotoluene	1.2	0.50	1.659	0	74.6	14.9	142			
N-Nitrosodi-n-propylamine	1.1	0.20	1.659	0	65.9	13.9	136			
4-Nitrophenol	2.2	0.25	3.309	0.09121	63.6	36.7	130			
Pentachlorophenol	1.9	0.40	3.309	0	56.5	15.8	113			
Phenol	2.1	0.20	3.309	0	63.9	25.1	124			
Pyrene	1.1	0.20	1.659	0	68.6	35.8	124			
1,2,4-Trichlorobenzene	1.3	0.20	1.659	0	78.0	30	113			
Surr: 2,4,6-Tribromophenol	3.0		3.309		90.3	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.659		90.0	20	131			
Surr: 2-Fluorophenol	2.5		3.309		74.2	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.659		80.0	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.659		101	25.6	137			
Surr: Phenol-d5	2.8		3.309		84.0	20.3	132			

Sample ID **1210858-004Cmsd** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **BatchQC** Batch ID: **4422** RunNo: **6445**

Prep Date: **10/19/2012** Analysis Date: **10/23/2012** SeqNo: **185434** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.681	0	71.3	25.6	142	4.05	22	
4-Chloro-3-methylphenol	2.3	0.50	3.351	0	69.5	63.7	100	4.10	27.3	
2-Chlorophenol	2.3	0.20	3.351	0	68.2	22.2	126	11.4	26.3	
1,4-Dichlorobenzene	1.1	0.20	1.681	0	63.4	12.4	115	1.02	27.4	
2,4-Dinitrotoluene	1.3	0.50	1.681	0	77.0	14.9	142	4.43	27.4	
N-Nitrosodi-n-propylamine	1.3	0.20	1.681	0	75.9	13.9	136	15.3	22.6	
4-Nitrophenol	2.3	0.25	3.351	0.09121	64.9	36.7	130	3.21	20	
Pentachlorophenol	2.0	0.40	3.351	0	59.9	15.8	113	7.18	27.1	
Phenol	2.2	0.20	3.351	0	66.5	25.1	124	5.18	32.2	
Pyrene	1.2	0.20	1.681	0	70.8	35.8	124	4.36	29.5	
1,2,4-Trichlorobenzene	1.4	0.20	1.681	0	80.5	30	113	4.34	27.8	
Surr: 2,4,6-Tribromophenol	3.1		3.351		93.6	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.5		1.681		91.0	20	131	0	0	
Surr: 2-Fluorophenol	2.5		3.351		75.3	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.4		1.681		81.4	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.6		1.681		96.9	25.6	137	0	0	
Surr: Phenol-d5	2.9		3.351		85.9	20.3	132	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210856**

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	MB-4426	SampType:	MBLK		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	4426		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185363	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-4426	SampType:	LCS		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	4426		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185364	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	101	80	120			

Sample ID	1210859-002CMS	SampType:	MS		TestCode:	EPA Method 7471: Mercury				
Client ID:	BatchQC	Batch ID:	4426		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185391	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1654	0.01134	102	75	125			

Sample ID	1210859-002CMSD	SampType:	MSD		TestCode:	EPA Method 7471: Mercury				
Client ID:	BatchQC	Batch ID:	4426		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185392	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1685	0.01134	99.0	75	125	1.06	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210856**

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4440**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **4440**	RunNo: **6493**
Prep Date: **10/22/2012**	Analysis Date: **10/25/2012**	SeqNo: **186820** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	0.64	0.25								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID **LCS-4440**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **4440**	RunNo: **6493**
Prep Date: **10/22/2012**	Analysis Date: **10/25/2012**	SeqNo: **186821** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	25	2.5	25.00	0.6605	96.6	80	120			
Arsenic	25	2.5	25.00	0	102	80	120			
Barium	25	0.10	25.00	0	98.6	80	120			
Beryllium	26	0.15	25.00	0	103	80	120			
Cadmium	25	0.10	25.00	0	98.8	80	120			
Chromium	25	0.30	25.00	0	99.0	80	120			
Cobalt	24	0.30	25.00	0	95.6	80	120			
Lead	24	0.25	25.00	0	96.6	80	120			
Manganese	24	0.10	25.00	0.05400	96.6	80	120			
Nickel	24	0.50	25.00	0	94.2	80	120			
Selenium	24	2.5	25.00	0	94.1	80	120			
Silver	6.0	0.25	5.000	0.6425	106	80	120			B
Vanadium	25	2.5	25.00	0	102	80	120			
Zinc	24	2.5	25.00	0	97.3	80	120			

Sample ID **1210771-001AMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC**	Batch ID: **4440**	RunNo: **6493**
Prep Date: **10/22/2012**	Analysis Date: **10/25/2012**	SeqNo: **186845** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	23	2.5	24.93	2.265	83.0	75	125			
Cadmium	20	0.10	24.93	0.03505	80.0	75	125			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210856**

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	1210771-001AMS	SampType:	MS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	BatchQC	Batch ID:	4440		RunNo:	6493				
Prep Date:	10/22/2012	Analysis Date:	10/25/2012		SeqNo:	186845	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	25	0.30	24.93	3.270	86.6	75	125			
Selenium	17	2.5	24.93	0	68.1	75	125			S

Sample ID	1210771-001AMSD	SampType:	MSD		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	BatchQC	Batch ID:	4440		RunNo:	6493				
Prep Date:	10/22/2012	Analysis Date:	10/25/2012		SeqNo:	186849	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	23	2.5	24.96	2.265	81.7	75	125	1.34	20	
Cadmium	19	0.10	24.96	0.03505	77.2	75	125	3.39	20	
Chromium	24	0.30	24.96	3.270	84.2	75	125	2.39	20	
Selenium	15	2.5	24.96	0	61.4	75	125	10.1	20	S

Sample ID	MB-4440	SampType:	MBLK		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS	Batch ID:	4440		RunNo:	6546				
Prep Date:	10/22/2012	Analysis Date:	10/29/2012		SeqNo:	188992	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
[illegible]	ND	0.25								

Sample ID	LCS-4440	SampType:	LCS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	LCSS	Batch ID:	4440		RunNo:	6546				
Prep Date:	10/22/2012	Analysis Date:	10/29/2012		SeqNo:	188993	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	5.7	0.25	5.000	0	113	80	120			

Sample ID	1210771-001AMS	SampType:	MS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	BatchQC	Batch ID:	4440		RunNo:	6546				
Prep Date:	10/22/2012	Analysis Date:	10/29/2012		SeqNo:	189043	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	4.3	0.25	4.987	0	85.5	75	125			

Sample ID	1210771-001AMSD	SampType:	MSD		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	BatchQC	Batch ID:	4440		RunNo:	6546				
Prep Date:	10/22/2012	Analysis Date:	10/29/2012		SeqNo:	189044	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	4.0	0.25	4.992	0	80.9	75	125	5.39	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210856**

21-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	**MB-4440**	SampType: **MBLK**			TestCode: **EPA Method 6010B: Soil Metals**					
Client ID:	**PBS**	Batch ID: **4440**			RunNo: **6670**					
Prep Date:	**10/22/2012**	Analysis Date: **11/2/2012**			SeqNo: **192431**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	1.0								

Sample ID	**LCS-4440**	SampType: **LCS**			TestCode: **EPA Method 6010B: Soil Metals**					
Client ID:	**LCSS**	Batch ID: **4440**			RunNo: **6670**					
Prep Date:	**10/22/2012**	Analysis Date: **11/2/2012**			SeqNo: **192432**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	27	1.0	25.00	0	109	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1210856

Received by/date: 10/18/12

Logged By: Michelle Garcia — 10/18/2012 8:00:00 AM — Michelle Garcia

Completed By: Michelle Garcia — 10/18/2012 8:42:47 AM — Michelle Garcia

Reviewed By: 10/18/12

Chain of Custody

1. Were seals intact? — Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? — Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? — FedEx

Log In

4. Coolers are present? (see 19. for cooler specific information) — Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? — Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C — Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? — Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? — Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? — Yes ☑ No ☐
10. Was preservative added to bottles? — Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? — Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? — Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) — Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? — Yes ☑ No ☐
15. Is it clear what analyses were requested? — Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) — Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? — Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: ☐ Yes ☐ No
Sample Temperature: 1.6

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10-16-12	1500	SOIL	SWMU 1-31 (0-0.5)	2 VIALS	8081	-001										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1540		SWMU 1-32 (0-0.5)	2 VIALS	8081	-002										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1540		SWMU 1-32 (0-0.5) DUP	2 VIALS	8081	-003										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			
	1603		SWMU 1-33 (0-0.5)	2 VIALS	8081	-004										X						
				2 VIALS	MeOH											X						
				3 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/17/12	0751				
Date:	Time:	Relinquished by:	Received by:	10/18/12	0800

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name:
Project #: SWMU No. 1
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: ☐ Yes ☐ No
Sample Temperature: 1.7°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/10/12	1630	SOIL	SWMU 1-34(0-0.5')	2 VIALS	SOBI	- 005										X						
	↓		↓	2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1700		SWMU 1-36(0-0.5')	2 VIALS	SOBI	- 006										X						
				2 VIALS	MEOH											X						
↓	↓	↓	↓	3 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/17/12	0751			10/18/12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 13, 2012

Scott Crouch
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.1 OrderNo.: 1210858

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 8 sample(s) on 10/18/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1210858**
Date Reported: **11/13/2012**

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-18 (0-0.5')
Collection Date: 10/16/2012 10:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/19/2012 1:57:12 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/19/2012 1:57:12 PM
Surr: DNOP	96.0	77.6-140		%REC	1	10/19/2012 1:57:12 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2012 1:59:36 AM
Surr: BFB	90.4	84-116		%REC	1	10/25/2012 1:59:36 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 6:46:33 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 4:50:20 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 4:50:20 PM
Barium	700	2.0		mg/Kg	20	10/25/2012 4:53:22 PM
Beryllium	0.35	0.30		mg/Kg	2	10/25/2012 4:50:20 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 4:50:20 PM
Chromium	3.4	0.60		mg/Kg	2	10/25/2012 4:50:20 PM
Cobalt	1.9	0.60		mg/Kg	2	10/25/2012 4:50:20 PM
Iron	3600	500		mg/Kg	500	10/25/2012 4:56:13 PM
Lead	ND	0.50		mg/Kg	2	10/25/2012 4:50:20 PM
Manganese	300	2.0		mg/Kg	20	10/25/2012 4:53:22 PM
Nickel	3.6	1.0		mg/Kg	2	10/25/2012 4:50:20 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 4:50:20 PM
Silver	ND	0.50		mg/Kg	2	10/25/2012 4:50:20 PM
Vanadium	11	5.0		mg/Kg	2	10/25/2012 4:50:20 PM
Zinc	11	5.0		mg/Kg	2	10/25/2012 4:50:20 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Aniline	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Anthracene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Azobenzene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/23/2012 8:04:59 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-18 (0-0.5')
Collection Date: 10/16/2012 10:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/23/2012 8:04:59 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Carbazole	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/23/2012 8:04:59 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/23/2012 8:04:59 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/23/2012 8:04:59 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Chrysene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/23/2012 8:04:59 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/23/2012 8:04:59 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/23/2012 8:04:59 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/23/2012 8:04:59 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/23/2012 8:04:59 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/23/2012 8:04:59 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/23/2012 8:04:59 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/23/2012 8:04:59 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/23/2012 8:04:59 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Fluorene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Isophorone	ND	0.50		mg/Kg	1	10/23/2012 8:04:59 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/23/2012 8:04:59 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Naphthalene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-18 (0-0.5')
Collection Date: 10/16/2012 10:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/23/2012 8:04:59 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/23/2012 8:04:59 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/23/2012 8:04:59 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/23/2012 8:04:59 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Phenol	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Pyrene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Pyridine	ND	0.50		mg/Kg	1	10/23/2012 8:04:59 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/23/2012 8:04:59 PM
Surr: 2,4,6-Tribromophenol	66.5	21.3-145		%REC	1	10/23/2012 8:04:59 PM
Surr: 2-Fluorobiphenyl	67.0	20-131		%REC	1	10/23/2012 8:04:59 PM
Surr: 2-Fluorophenol	60.4	11.9-130		%REC	1	10/23/2012 8:04:59 PM
Surr: 4-Terphenyl-d14	62.7	25.1-149		%REC	1	10/23/2012 8:04:59 PM
Surr: Nitrobenzene-d5	71.7	25.6-137		%REC	1	10/23/2012 8:04:59 PM
Surr: Phenol-d5	68.7	20.3-132		%REC	1	10/23/2012 8:04:59 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00109	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Toluene	0.00687	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Ethylbenzene	0.00386	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Xylenes, Total	0.0210	0.00144		mg/Kg	1	10/19/2012 12:37:00 PM
Methyl tert-butyl ether (MTBE)	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,2,4-Trimethylbenzene	0.00455	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,3,5-Trimethylbenzene	0.00192	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,2-Dichloroethane (EDC)	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,2-Dibromoethane (EDB)	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Naphthalene	ND	0.00144		mg/Kg	1	10/19/2012 12:37:00 PM
1-Methylnaphthalene	ND	0.00288		mg/Kg	1	10/19/2012 12:37:00 PM
2-Methylnaphthalene	ND	0.00288		mg/Kg	1	10/19/2012 12:37:00 PM
Acetone	0.148	0.00719	E	mg/Kg	1	10/19/2012 12:37:00 PM
Bromobenzene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Bromodichloromethane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Bromoform	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Bromomethane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
2-Butanone	ND	0.00719		mg/Kg	1	10/19/2012 12:37:00 PM
Carbon tetrachloride	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Chlorobenzene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Chloroethane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-18 (0-0.5')
Collection Date: 10/16/2012 10:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Chloromethane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
2-Chlorotoluene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Carbon disulfide	ND	0.00719		mg/Kg	1	10/19/2012 12:37:00 PM
4-Chlorotoluene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
cis-1,2-DCE	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
cis-1,3-Dichloropropene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,2-Dibromo-3-chloropropane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Dibromochloromethane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Dibromomethane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,2-Dichlorobenzene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,3-Dichlorobenzene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,4-Dichlorobenzene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Dichlorodifluoromethane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,1-Dichloroethane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,1-Dichloroethene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,2-Dichloropropane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,3-Dichloropropane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
2,2-Dichloropropane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,1-Dichloropropene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Hexachlorobutadiene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Isopropylbenzene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
4-Isopropyltoluene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Methylene chloride	ND	0.00216		mg/Kg	1	10/19/2012 12:37:00 PM
n-Butylbenzene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
2-Hexanone	ND	0.00719		mg/Kg	1	10/19/2012 12:37:00 PM
n-Propylbenzene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
sec-Butylbenzene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Styrene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
4-Methyl-2-pentanone	ND	0.00719		mg/Kg	1	10/19/2012 12:37:00 PM
tert-Butylbenzene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,1,1,2-Tetrachloroethane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,1,2,2-Tetrachloroethane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Tetrachloroethene (PCE)	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
trans-1,2-DCE	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
trans-1,3-Dichloropropene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,2,3-Trichlorobenzene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,2,4-Trichlorobenzene	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,1,1-Trichloroethane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
1,1,2-Trichloroethane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Trichloroethene (TCE)	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Trichlorofluoromethane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-18 (0-0.5')
Collection Date: 10/16/2012 10:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Vinyl chloride	ND	0.000719		mg/Kg	1	10/19/2012 12:37:00 PM
Surr: 1,2-Dichloroethane-d4	86.5	70-130		%REC	1	10/19/2012 12:37:00 PM
Surr: 4-Bromofluorobenzene	121	70-130		%REC	1	10/19/2012 12:37:00 PM
Surr: Dibromofluoromethane	97.8	70-130		%REC	1	10/19/2012 12:37:00 PM
Surr: Toluene-d8	102	70-130		%REC	1	10/19/2012 12:37:00 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-18 (1-1.5')
Collection Date: 10/16/2012 10:10:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/19/2012 2:22:14 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/19/2012 2:22:14 PM
Surr: DNOP	92.8	77.6-140		%REC	1	10/19/2012 2:22:14 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2012 2:28:14 AM
Surr: BFB	89.9	84-116		%REC	1	10/25/2012 2:28:14 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 6:48:19 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	12		mg/Kg	5	10/29/2012 4:05:34 PM
Arsenic	ND	12		mg/Kg	5	10/29/2012 4:05:34 PM
Barium	340	2.0		mg/Kg	20	10/25/2012 5:06:32 PM
Beryllium	ND	0.75		mg/Kg	5	10/29/2012 4:05:34 PM
Cadmium	ND	0.50		mg/Kg	5	10/29/2012 4:05:34 PM
Chromium	9.2	1.5		mg/Kg	5	10/29/2012 4:05:34 PM
Cobalt	3.8	1.5		mg/Kg	5	10/29/2012 4:05:34 PM
Iron	11000	500		mg/Kg	500	10/25/2012 5:20:33 PM
Lead	6.1	1.2		mg/Kg	5	10/29/2012 4:05:34 PM
Manganese	1500	5.0		mg/Kg	50	10/29/2012 4:18:19 PM
Nickel	6.4	2.5		mg/Kg	5	10/29/2012 4:05:34 PM
Selenium	ND	12		mg/Kg	5	10/29/2012 4:05:34 PM
Silver	ND	1.2		mg/Kg	5	10/29/2012 4:05:34 PM
Vanadium	20	12		mg/Kg	5	10/29/2012 4:05:34 PM
Zinc	15	12		mg/Kg	5	10/29/2012 4:05:34 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Aniline	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Anthracene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Azobenzene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/23/2012 8:34:29 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-18 (1-1.5')
Collection Date: 10/16/2012 10:10:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/23/2012 8:34:29 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Carbazole	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/23/2012 8:34:29 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/23/2012 8:34:29 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/23/2012 8:34:29 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Chrysene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/23/2012 8:34:29 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/23/2012 8:34:29 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/23/2012 8:34:29 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/23/2012 8:34:29 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/23/2012 8:34:29 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/23/2012 8:34:29 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/23/2012 8:34:29 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/23/2012 8:34:29 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/23/2012 8:34:29 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Fluorene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Isophorone	ND	0.50		mg/Kg	1	10/23/2012 8:34:29 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/23/2012 8:34:29 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Naphthalene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-18 (1-1.5')
Collection Date: 10/16/2012 10:10:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/23/2012 8:34:29 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/23/2012 8:34:29 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/23/2012 8:34:29 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/23/2012 8:34:29 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Phenol	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Pyrene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Pyridine	ND	0.50		mg/Kg	1	10/23/2012 8:34:29 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/23/2012 8:34:29 PM
Surr: 2,4,6-Tribromophenol	77.5	21.3-145		%REC	1	10/23/2012 8:34:29 PM
Surr: 2-Fluorobiphenyl	80.3	20-131		%REC	1	10/23/2012 8:34:29 PM
Surr: 2-Fluorophenol	73.9	11.9-130		%REC	1	10/23/2012 8:34:29 PM
Surr: 4-Terphenyl-d14	71.0	25.1-149		%REC	1	10/23/2012 8:34:29 PM
Surr: Nitrobenzene-d5	82.0	25.6-137		%REC	1	10/23/2012 8:34:29 PM
Surr: Phenol-d5	78.3	20.3-132		%REC	1	10/23/2012 8:34:29 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00160	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Toluene	0.00190	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Ethylbenzene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Xylenes, Total	0.00154	0.00149		mg/Kg	1	10/18/2012 4:54:54 PM
Methyl tert-butyl ether (MTBE)	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,2,4-Trimethylbenzene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,3,5-Trimethylbenzene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,2-Dichloroethane (EDC)	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,2-Dibromoethane (EDB)	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Naphthalene	ND	0.00149		mg/Kg	1	10/18/2012 4:54:54 PM
1-Methylnaphthalene	ND	0.00299		mg/Kg	1	10/18/2012 4:54:54 PM
2-Methylnaphthalene	ND	0.00299		mg/Kg	1	10/18/2012 4:54:54 PM
Acetone	0.0512	0.00747		mg/Kg	1	10/18/2012 4:54:54 PM
Bromobenzene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Bromodichloromethane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Bromoform	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Bromomethane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
2-Butanone	ND	0.00747		mg/Kg	1	10/18/2012 4:54:54 PM
Carbon tetrachloride	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Chlorobenzene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Chloroethane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-18 (1-1.5')
Collection Date: 10/16/2012 10:10:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Chloromethane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
2-Chlorotoluene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Carbon disulfide	ND	0.00747		mg/Kg	1	10/18/2012 4:54:54 PM
4-Chlorotoluene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
cis-1,2-DCE	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
cis-1,3-Dichloropropene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,2-Dibromo-3-chloropropane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Dibromochloromethane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Dibromomethane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,2-Dichlorobenzene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,3-Dichlorobenzene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,4-Dichlorobenzene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Dichlorodifluoromethane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,1-Dichloroethane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,1-Dichloroethene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,2-Dichloropropane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,3-Dichloropropane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
2,2-Dichloropropane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,1-Dichloropropene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Hexachlorobutadiene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Isopropylbenzene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
4-Isopropyltoluene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Methylene chloride	ND	0.00224		mg/Kg	1	10/18/2012 4:54:54 PM
n-Butylbenzene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
2-Hexanone	ND	0.00747		mg/Kg	1	10/18/2012 4:54:54 PM
n-Propylbenzene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
sec-Butylbenzene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Styrene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
4-Methyl-2-pentanone	ND	0.00747		mg/Kg	1	10/18/2012 4:54:54 PM
tert-Butylbenzene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,1,1,2-Tetrachloroethane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,1,2,2-Tetrachloroethane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Tetrachloroethene (PCE)	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
trans-1,2-DCE	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
trans-1,3-Dichloropropene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,2,3-Trichlorobenzene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,2,4-Trichlorobenzene	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,1,1-Trichloroethane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
1,1,2-Trichloroethane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Trichloroethene (TCE)	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Trichlorofluoromethane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-18 (1-1.5')
Collection Date: 10/16/2012 10:10:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Vinyl chloride	ND	0.000747		mg/Kg	1	10/18/2012 4:54:54 PM
Surr: 1,2-Dichloroethane-d4	86.8	70-130		%REC	1	10/18/2012 4:54:54 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	10/18/2012 4:54:54 PM
Surr: Dibromofluoromethane	105	70-130		%REC	1	10/18/2012 4:54:54 PM
Surr: Toluene-d8	97.2	70-130		%REC	1	10/18/2012 4:54:54 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-19 (0-0.5')
Collection Date: 10/16/2012 10:35:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/21/2012 6:14:50 AM
Motor Oil Range Organics (MRO)	ND	52		mg/Kg	1	10/21/2012 6:14:50 AM
Surr: DNOP	104	77.6-140		%REC	1	10/21/2012 6:14:50 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2012 2:57:02 AM
Surr: BFB	89.7	84-116		%REC	1	10/25/2012 2:57:02 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.056	0.033		mg/kg	1	10/23/2012 6:50:07 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 5:26:14 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 5:26:14 PM
Barium	530	2.0		mg/Kg	20	10/25/2012 5:29:06 PM
Beryllium	0.68	0.30		mg/Kg	2	10/25/2012 5:26:14 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 5:26:14 PM
Chromium	13	0.60		mg/Kg	2	10/25/2012 5:26:14 PM
Cobalt	3.8	0.60		mg/Kg	2	10/25/2012 5:26:14 PM
Iron	13000	500		mg/Kg	500	10/25/2012 5:31:45 PM
Lead	2.8	0.50		mg/Kg	2	10/25/2012 5:26:14 PM
Manganese	550	2.0		mg/Kg	20	10/25/2012 5:29:06 PM
Nickel	6.5	1.0		mg/Kg	2	10/25/2012 5:26:14 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 5:26:14 PM
Silver	ND	1.2		mg/Kg	5	10/31/2012 1:29:43 PM
Vanadium	18	5.0		mg/Kg	2	10/25/2012 5:26:14 PM
Zinc	25	5.0		mg/Kg	2	10/25/2012 5:26:14 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Acenaphthylene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Aniline	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Anthracene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Azobenzene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Benzoic acid	ND	1.0		mg/Kg	1	10/23/2012 9:03:58 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-19 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/16/2012 10:35:00 AM
Lab ID: 1210858-003 **Matrix:** SOIL **Received Date:** 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/23/2012 9:03:58 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Carbazole	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/23/2012 9:03:58 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/23/2012 9:03:58 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/23/2012 9:03:58 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Chrysene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/23/2012 9:03:58 PM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/23/2012 9:03:58 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Dibenzofuran	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/23/2012 9:03:58 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/23/2012 9:03:58 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/23/2012 9:03:58 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/23/2012 9:03:58 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/23/2012 9:03:58 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/23/2012 9:03:58 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/23/2012 9:03:58 PM
Fluoranthene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Fluorene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Hexachloroethane	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Isophorone	ND	1.0		mg/Kg	1	10/23/2012 9:03:58 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
2-Methylphenol	ND	1.0		mg/Kg	1	10/23/2012 9:03:58 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Naphthalene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-19 (0-0.5')
Collection Date: 10/16/2012 10:35:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/23/2012 9:03:58 PM
Nitrobenzene	ND	1.0		mg/Kg	1	10/23/2012 9:03:58 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/23/2012 9:03:58 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/23/2012 9:03:58 PM
Phenanthrene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Phenol	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Pyrene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Pyridine	ND	1.0		mg/Kg	1	10/23/2012 9:03:58 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/23/2012 9:03:58 PM
Surr: 2,4,6-Tribromophenol	80.0	21.3-145		%REC	1	10/23/2012 9:03:58 PM
Surr: 2-Fluorobiphenyl	88.3	20-131		%REC	1	10/23/2012 9:03:58 PM
Surr: 2-Fluorophenol	82.3	11.9-130		%REC	1	10/23/2012 9:03:58 PM
Surr: 4-Terphenyl-d14	75.6	25.1-149		%REC	1	10/23/2012 9:03:58 PM
Surr: Nitrobenzene-d5	91.0	25.6-137		%REC	1	10/23/2012 9:03:58 PM
Surr: Phenol-d5	85.5	20.3-132		%REC	1	10/23/2012 9:03:58 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00225	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Toluene	0.00290	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Ethylbenzene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Xylenes, Total	ND	0.00193		mg/Kg	1	10/18/2012 5:25:43 PM
Methyl tert-butyl ether (MTBE)	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,2,4-Trimethylbenzene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,3,5-Trimethylbenzene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,2-Dichloroethane (EDC)	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,2-Dibromoethane (EDB)	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Naphthalene	ND	0.00193		mg/Kg	1	10/18/2012 5:25:43 PM
1-Methylnaphthalene	ND	0.00386		mg/Kg	1	10/18/2012 5:25:43 PM
2-Methylnaphthalene	ND	0.00386		mg/Kg	1	10/18/2012 5:25:43 PM
Acetone	0.0988	0.00966		mg/Kg	1	10/18/2012 5:25:43 PM
Bromobenzene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Bromodichloromethane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Bromoform	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Bromomethane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
2-Butanone	ND	0.00966		mg/Kg	1	10/18/2012 5:25:43 PM
Carbon tetrachloride	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Chlorobenzene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Chloroethane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-19 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/16/2012 10:35:00 AM
Lab ID: 1210858-003 **Matrix:** SOIL **Received Date:** 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Chloromethane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
2-Chlorotoluene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Carbon disulfide	ND	0.00966		mg/Kg	1	10/18/2012 5:25:43 PM
4-Chlorotoluene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
cis-1,2-DCE	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
cis-1,3-Dichloropropene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,2-Dibromo-3-chloropropane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Dibromochloromethane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Dibromomethane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,2-Dichlorobenzene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,3-Dichlorobenzene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,4-Dichlorobenzene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Dichlorodifluoromethane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,1-Dichloroethane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,1-Dichloroethene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,2-Dichloropropane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,3-Dichloropropane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
2,2-Dichloropropane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,1-Dichloropropene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Hexachlorobutadiene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Isopropylbenzene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
4-Isopropyltoluene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Methylene chloride	ND	0.00290		mg/Kg	1	10/18/2012 5:25:43 PM
n-Butylbenzene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
2-Hexanone	ND	0.00966		mg/Kg	1	10/18/2012 5:25:43 PM
n-Propylbenzene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
sec-Butylbenzene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Styrene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
4-Methyl-2-pentanone	ND	0.00966		mg/Kg	1	10/18/2012 5:25:43 PM
tert-Butylbenzene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,1,1,2-Tetrachloroethane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,1,2,2-Tetrachloroethane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Tetrachloroethene (PCE)	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
trans-1,2-DCE	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
trans-1,3-Dichloropropene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,2,3-Trichlorobenzene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,2,4-Trichlorobenzene	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,1,1-Trichloroethane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
1,1,2-Trichloroethane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Trichloroethene (TCE)	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Trichlorofluoromethane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-19 (0-0.5')
Collection Date: 10/16/2012 10:35:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Vinyl chloride	ND	0.000966		mg/Kg	1	10/18/2012 5:25:43 PM
Surr: 1,2-Dichloroethane-d4	96.5	70-130		%REC	1	10/18/2012 5:25:43 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	10/18/2012 5:25:43 PM
Surr: Dibromofluoromethane	103	70-130		%REC	1	10/18/2012 5:25:43 PM
Surr: Toluene-d8	94.1	70-130		%REC	1	10/18/2012 5:25:43 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-21 (0-0.5')
Collection Date: 10/16/2012 11:05:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/19/2012 11:44:48 AM
Motor Oil Range Organics (MRO)	ND	52		mg/Kg	1	10/19/2012 11:44:48 AM
Surr: DNOP	96.8	77.6-140		%REC	1	10/19/2012 11:44:48 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2012 3:25:48 AM
Surr: BFB	89.2	84-116		%REC	1	10/25/2012 3:25:48 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 6:51:59 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 5:39:12 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 5:39:12 PM
Barium	440	2.0		mg/Kg	20	10/25/2012 5:42:05 PM
Beryllium	0.77	0.30		mg/Kg	2	10/25/2012 5:39:12 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 5:39:12 PM
Chromium	9.9	0.60		mg/Kg	2	10/25/2012 5:39:12 PM
Cobalt	4.1	0.60		mg/Kg	2	10/25/2012 5:39:12 PM
Iron	14000	500		mg/Kg	500	10/25/2012 5:44:46 PM
Lead	2.6	0.50		mg/Kg	2	10/25/2012 5:39:12 PM
Manganese	450	2.0		mg/Kg	20	10/25/2012 5:42:05 PM
Nickel	7.5	1.0		mg/Kg	2	10/25/2012 5:39:12 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 5:39:12 PM
Silver	ND	0.50		mg/Kg	2	10/31/2012 1:44:15 PM
Vanadium	19	5.0		mg/Kg	2	10/25/2012 5:39:12 PM
Zinc	17	5.0		mg/Kg	2	10/25/2012 5:39:12 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Aniline	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Anthracene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Azobenzene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/23/2012 9:33:26 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-21 (0-0.5')
Collection Date: 10/16/2012 11:05:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/23/2012 9:33:26 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Carbazole	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/23/2012 9:33:26 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/23/2012 9:33:26 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/23/2012 9:33:26 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Chrysene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/23/2012 9:33:26 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/23/2012 9:33:26 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/23/2012 9:33:26 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/23/2012 9:33:26 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/23/2012 9:33:26 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/23/2012 9:33:26 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/23/2012 9:33:26 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/23/2012 9:33:26 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/23/2012 9:33:26 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Fluorene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Isophorone	ND	0.50		mg/Kg	1	10/23/2012 9:33:26 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/23/2012 9:33:26 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Naphthalene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-21 (0-0.5')
Collection Date: 10/16/2012 11:05:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/23/2012 9:33:26 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/23/2012 9:33:26 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/23/2012 9:33:26 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/23/2012 9:33:26 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Phenol	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Pyrene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Pyridine	ND	0.50		mg/Kg	1	10/23/2012 9:33:26 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/23/2012 9:33:26 PM
Surr: 2,4,6-Tribromophenol	77.7	21.3-145		%REC	1	10/23/2012 9:33:26 PM
Surr: 2-Fluorobiphenyl	77.7	20-131		%REC	1	10/23/2012 9:33:26 PM
Surr: 2-Fluorophenol	75.5	11.9-130		%REC	1	10/23/2012 9:33:26 PM
Surr: 4-Terphenyl-d14	74.2	25.1-149		%REC	1	10/23/2012 9:33:26 PM
Surr: Nitrobenzene-d5	89.9	25.6-137		%REC	1	10/23/2012 9:33:26 PM
Surr: Phenol-d5	82.2	20.3-132		%REC	1	10/23/2012 9:33:26 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00183	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Toluene	0.00147	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Ethylbenzene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Xylenes, Total	ND	0.00208		mg/Kg	1	10/18/2012 5:56:28 PM
Methyl tert-butyl ether (MTBE)	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,2,4-Trimethylbenzene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,3,5-Trimethylbenzene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,2-Dichloroethane (EDC)	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,2-Dibromoethane (EDB)	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Naphthalene	ND	0.00208		mg/Kg	1	10/18/2012 5:56:28 PM
1-Methylnaphthalene	ND	0.00416		mg/Kg	1	10/18/2012 5:56:28 PM
2-Methylnaphthalene	ND	0.00416		mg/Kg	1	10/18/2012 5:56:28 PM
Acetone	0.0144	0.0104		mg/Kg	1	10/18/2012 5:56:28 PM
Bromobenzene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Bromodichloromethane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Bromoform	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Bromomethane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
2-Butanone	ND	0.0104		mg/Kg	1	10/18/2012 5:56:28 PM
Carbon tetrachloride	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Chlorobenzene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Chloroethane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-21 (0-0.5')
Collection Date: 10/16/2012 11:05:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Chloromethane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
2-Chlorotoluene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Carbon disulfide	ND	0.0104		mg/Kg	1	10/18/2012 5:56:28 PM
4-Chlorotoluene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
cis-1,2-DCE	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
cis-1,3-Dichloropropene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,2-Dibromo-3-chloropropane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Dibromochloromethane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Dibromomethane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,2-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,3-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,4-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Dichlorodifluoromethane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,1-Dichloroethane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,1-Dichloroethene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,2-Dichloropropane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,3-Dichloropropane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
2,2-Dichloropropane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,1-Dichloropropene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Hexachlorobutadiene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Isopropylbenzene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
4-Isopropyltoluene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Methylene chloride	ND	0.00312		mg/Kg	1	10/18/2012 5:56:28 PM
n-Butylbenzene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
2-Hexanone	ND	0.0104		mg/Kg	1	10/18/2012 5:56:28 PM
n-Propylbenzene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
sec-Butylbenzene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Styrene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
4-Methyl-2-pentanone	ND	0.0104		mg/Kg	1	10/18/2012 5:56:28 PM
tert-Butylbenzene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,1,1,2-Tetrachloroethane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,1,2,2-Tetrachloroethane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Tetrachloroethene (PCE)	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
trans-1,2-DCE	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
trans-1,3-Dichloropropene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,2,3-Trichlorobenzene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,2,4-Trichlorobenzene	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,1,1-Trichloroethane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
1,1,2-Trichloroethane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Trichloroethene (TCE)	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Trichlorofluoromethane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-21 (0-0.5')
Collection Date: 10/16/2012 11:05:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Vinyl chloride	ND	0.00104		mg/Kg	1	10/18/2012 5:56:28 PM
Surr: 1,2-Dichloroethane-d4	86.1	70-130		%REC	1	10/18/2012 5:56:28 PM
Surr: 4-Bromofluorobenzene	98.8	70-130		%REC	1	10/18/2012 5:56:28 PM
Surr: Dibromofluoromethane	93.5	70-130		%REC	1	10/18/2012 5:56:28 PM
Surr: Toluene-d8	97.5	70-130		%REC	1	10/18/2012 5:56:28 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-21 (0-0.5') DUP
Collection Date: 10/16/2012 11:05:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/19/2012 12:09:39 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/19/2012 12:09:39 PM
Surr: DNOP	95.2	77.6-140		%REC	1	10/19/2012 12:09:39 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2012 3:54:32 AM
Surr: BFB	89.3	84-116		%REC	1	10/25/2012 3:54:32 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 6:53:47 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 6:01:03 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 6:01:03 PM
Barium	290	2.0		mg/Kg	20	10/25/2012 6:03:57 PM
Beryllium	0.89	0.30		mg/Kg	2	10/25/2012 6:01:03 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 6:01:03 PM
Chromium	11	0.60		mg/Kg	2	10/25/2012 6:01:03 PM
Cobalt	4.5	0.60		mg/Kg	2	10/25/2012 6:01:03 PM
Iron	17000	500		mg/Kg	500	10/31/2012 1:51:45 PM
Lead	2.3	0.50		mg/Kg	2	10/25/2012 6:01:03 PM
Manganese	470	2.0		mg/Kg	20	10/25/2012 6:03:57 PM
Nickel	8.4	1.0		mg/Kg	2	10/25/2012 6:01:03 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 6:01:03 PM
Silver	ND	0.50		mg/Kg	2	10/31/2012 1:47:07 PM
Vanadium	22	5.0		mg/Kg	2	10/25/2012 6:01:03 PM
Zinc	18	5.0		mg/Kg	2	10/25/2012 6:01:03 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Aniline	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Anthracene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Azobenzene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/23/2012 11:01:44 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-21 (0-0.5') DUP
Collection Date: 10/16/2012 11:05:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/23/2012 11:01:44 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Carbazole	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/23/2012 11:01:44 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/23/2012 11:01:44 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/23/2012 11:01:44 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Chrysene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/23/2012 11:01:44 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/23/2012 11:01:44 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/23/2012 11:01:44 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/23/2012 11:01:44 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/23/2012 11:01:44 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/23/2012 11:01:44 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/23/2012 11:01:44 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/23/2012 11:01:44 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/23/2012 11:01:44 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Fluorene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Isophorone	ND	0.50		mg/Kg	1	10/23/2012 11:01:44 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/23/2012 11:01:44 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Naphthalene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-21 (0-0.5') DUP
Collection Date: 10/16/2012 11:05:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/23/2012 11:01:44 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/23/2012 11:01:44 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/23/2012 11:01:44 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/23/2012 11:01:44 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Phenol	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Pyrene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Pyridine	ND	0.50		mg/Kg	1	10/23/2012 11:01:44 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/23/2012 11:01:44 PM
Surr: 2,4,6-Tribromophenol	76.9	21.3-145		%REC	1	10/23/2012 11:01:44 PM
Surr: 2-Fluorobiphenyl	81.8	20-131		%REC	1	10/23/2012 11:01:44 PM
Surr: 2-Fluorophenol	74.0	11.9-130		%REC	1	10/23/2012 11:01:44 PM
Surr: 4-Terphenyl-d14	72.7	25.1-149		%REC	1	10/23/2012 11:01:44 PM
Surr: Nitrobenzene-d5	87.9	25.6-137		%REC	1	10/23/2012 11:01:44 PM
Surr: Phenol-d5	78.0	20.3-132		%REC	1	10/23/2012 11:01:44 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00178	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Toluene	0.00111	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Ethylbenzene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Xylenes, Total	ND	0.00195		mg/Kg	1	10/18/2012 6:27:13 PM
Methyl tert-butyl ether (MTBE)	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,2,4-Trimethylbenzene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,3,5-Trimethylbenzene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,2-Dichloroethane (EDC)	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,2-Dibromoethane (EDB)	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Naphthalene	ND	0.00195		mg/Kg	1	10/18/2012 6:27:13 PM
1-Methylnaphthalene	ND	0.00390		mg/Kg	1	10/18/2012 6:27:13 PM
2-Methylnaphthalene	ND	0.00390		mg/Kg	1	10/18/2012 6:27:13 PM
Acetone	0.0316	0.00974		mg/Kg	1	10/18/2012 6:27:13 PM
Bromobenzene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Bromodichloromethane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Bromoform	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Bromomethane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
2-Butanone	ND	0.00974		mg/Kg	1	10/18/2012 6:27:13 PM
Carbon tetrachloride	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Chlorobenzene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Chloroethane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-21 (0-0.5') DUP
Collection Date: 10/16/2012 11:05:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Chloromethane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
2-Chlorotoluene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Carbon disulfide	ND	0.00974		mg/Kg	1	10/18/2012 6:27:13 PM
4-Chlorotoluene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
cis-1,2-DCE	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
cis-1,3-Dichloropropene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,2-Dibromo-3-chloropropane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Dibromochloromethane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Dibromomethane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,2-Dichlorobenzene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,3-Dichlorobenzene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,4-Dichlorobenzene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Dichlorodifluoromethane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,1-Dichloroethane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,1-Dichloroethene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,2-Dichloropropane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,3-Dichloropropane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
2,2-Dichloropropane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,1-Dichloropropene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Hexachlorobutadiene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Isopropylbenzene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
4-Isopropyltoluene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Methylene chloride	ND	0.00292		mg/Kg	1	10/18/2012 6:27:13 PM
n-Butylbenzene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
2-Hexanone	ND	0.00974		mg/Kg	1	10/18/2012 6:27:13 PM
n-Propylbenzene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
sec-Butylbenzene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Styrene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
4-Methyl-2-pentanone	ND	0.00974		mg/Kg	1	10/18/2012 6:27:13 PM
tert-Butylbenzene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,1,1,2-Tetrachloroethane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,1,2,2-Tetrachloroethane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Tetrachloroethene (PCE)	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
trans-1,2-DCE	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
trans-1,3-Dichloropropene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,2,3-Trichlorobenzene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,2,4-Trichlorobenzene	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,1,1-Trichloroethane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
1,1,2-Trichloroethane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Trichloroethene (TCE)	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Trichlorofluoromethane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-21 (0-0.5') DUP
Collection Date: 10/16/2012 11:05:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Vinyl chloride	ND	0.000974		mg/Kg	1	10/18/2012 6:27:13 PM
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%REC	1	10/18/2012 6:27:13 PM
Surr: 4-Bromofluorobenzene	97.8	70-130		%REC	1	10/18/2012 6:27:13 PM
Surr: Dibromofluoromethane	103	70-130		%REC	1	10/18/2012 6:27:13 PM
Surr: Toluene-d8	88.5	70-130		%REC	1	10/18/2012 6:27:13 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-22 (0-0.5')
Collection Date: 10/16/2012 11:35:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/21/2012 5:25:09 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/21/2012 5:25:09 AM
Surr: DNOP	108	77.6-140		%REC	1	10/21/2012 5:25:09 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2012 4:23:17 AM
Surr: BFB	91.8	84-116		%REC	1	10/25/2012 4:23:17 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.034	0.033		mg/kg	1	10/23/2012 6:55:35 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 6:14:12 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 6:14:12 PM
Barium	590	2.0		mg/Kg	20	10/25/2012 6:17:18 PM
Beryllium	0.89	0.30		mg/Kg	2	10/25/2012 6:14:12 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 6:14:12 PM
Chromium	14	0.60		mg/Kg	2	10/25/2012 6:14:12 PM
Cobalt	5.3	0.60		mg/Kg	2	10/25/2012 6:14:12 PM
Iron	22000	500		mg/Kg	500	10/31/2012 1:57:31 PM
Lead	3.5	0.50		mg/Kg	2	10/25/2012 6:14:12 PM
Manganese	530	2.0		mg/Kg	20	10/25/2012 6:17:18 PM
Nickel	8.6	1.0		mg/Kg	2	10/25/2012 6:14:12 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 6:14:12 PM
Silver	ND	0.50		mg/Kg	2	10/31/2012 1:54:36 PM
Vanadium	27	5.0		mg/Kg	2	10/25/2012 6:14:12 PM
Zinc	26	5.0		mg/Kg	2	10/25/2012 6:14:12 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Acenaphthylene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Aniline	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Anthracene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Azobenzene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Benzoic acid	ND	1.0		mg/Kg	1	10/23/2012 11:31:08 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-22 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/16/2012 11:35:00 AM
Lab ID: 1210858-006 **Matrix:** SOIL **Received Date:** 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/23/2012 11:31:08 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Carbazole	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/23/2012 11:31:08 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/23/2012 11:31:08 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/23/2012 11:31:08 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Chrysene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/23/2012 11:31:08 PM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/23/2012 11:31:08 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Dibenzofuran	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/23/2012 11:31:08 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/23/2012 11:31:08 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/23/2012 11:31:08 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/23/2012 11:31:08 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/23/2012 11:31:08 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/23/2012 11:31:08 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/23/2012 11:31:08 PM
Fluoranthene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Fluorene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Hexachloroethane	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Isophorone	ND	1.0		mg/Kg	1	10/23/2012 11:31:08 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
2-Methylphenol	ND	1.0		mg/Kg	1	10/23/2012 11:31:08 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Naphthalene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-22 (0-0.5')
Collection Date: 10/16/2012 11:35:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/23/2012 11:31:08 PM
Nitrobenzene	ND	1.0		mg/Kg	1	10/23/2012 11:31:08 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/23/2012 11:31:08 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/23/2012 11:31:08 PM
Phenanthrene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Phenol	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Pyrene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Pyridine	ND	1.0		mg/Kg	1	10/23/2012 11:31:08 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/23/2012 11:31:08 PM
Surr: 2,4,6-Tribromophenol	51.1	21.3-145		%REC	1	10/23/2012 11:31:08 PM
Surr: 2-Fluorobiphenyl	55.1	20-131		%REC	1	10/23/2012 11:31:08 PM
Surr: 2-Fluorophenol	49.3	11.9-130		%REC	1	10/23/2012 11:31:08 PM
Surr: 4-Terphenyl-d14	55.2	25.1-149		%REC	1	10/23/2012 11:31:08 PM
Surr: Nitrobenzene-d5	56.6	25.6-137		%REC	1	10/23/2012 11:31:08 PM
Surr: Phenol-d5	53.3	20.3-132		%REC	1	10/23/2012 11:31:08 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00183	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Toluene	0.00156	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Ethylbenzene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Xylenes, Total	ND	0.00189		mg/Kg	1	10/18/2012 6:58:06 PM
Methyl tert-butyl ether (MTBE)	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,2,4-Trimethylbenzene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,3,5-Trimethylbenzene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,2-Dichloroethane (EDC)	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,2-Dibromoethane (EDB)	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Naphthalene	ND	0.00189		mg/Kg	1	10/18/2012 6:58:06 PM
1-Methylnaphthalene	ND	0.00377		mg/Kg	1	10/18/2012 6:58:06 PM
2-Methylnaphthalene	ND	0.00377		mg/Kg	1	10/18/2012 6:58:06 PM
Acetone	0.0637	0.00943		mg/Kg	1	10/18/2012 6:58:06 PM
Bromobenzene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Bromodichloromethane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Bromoform	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Bromomethane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
2-Butanone	ND	0.00943		mg/Kg	1	10/18/2012 6:58:06 PM
Carbon tetrachloride	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Chlorobenzene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Chloroethane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-22 (0-0.5')
Collection Date: 10/16/2012 11:35:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Chloromethane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
2-Chlorotoluene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Carbon disulfide	ND	0.00943		mg/Kg	1	10/18/2012 6:58:06 PM
4-Chlorotoluene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
cis-1,2-DCE	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
cis-1,3-Dichloropropene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,2-Dibromo-3-chloropropane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Dibromochloromethane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Dibromomethane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,2-Dichlorobenzene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,3-Dichlorobenzene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,4-Dichlorobenzene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Dichlorodifluoromethane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,1-Dichloroethane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,1-Dichloroethene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,2-Dichloropropane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,3-Dichloropropane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
2,2-Dichloropropane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,1-Dichloropropene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Hexachlorobutadiene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Isopropylbenzene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
4-Isopropyltoluene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Methylene chloride	ND	0.00283		mg/Kg	1	10/18/2012 6:58:06 PM
n-Butylbenzene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
2-Hexanone	ND	0.00943		mg/Kg	1	10/18/2012 6:58:06 PM
n-Propylbenzene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
sec-Butylbenzene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Styrene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
4-Methyl-2-pentanone	ND	0.00943		mg/Kg	1	10/18/2012 6:58:06 PM
tert-Butylbenzene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,1,1,2-Tetrachloroethane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,1,2,2-Tetrachloroethane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Tetrachloroethene (PCE)	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
trans-1,2-DCE	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
trans-1,3-Dichloropropene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,2,3-Trichlorobenzene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,2,4-Trichlorobenzene	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,1,1-Trichloroethane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
1,1,2-Trichloroethane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Trichloroethene (TCE)	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Trichlorofluoromethane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-22 (0-0.5')
Collection Date: 10/16/2012 11:35:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Vinyl chloride	ND	0.000943		mg/Kg	1	10/18/2012 6:58:06 PM
Surr: 1,2-Dichloroethane-d4	91.0	70-130		%REC	1	10/18/2012 6:58:06 PM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	1	10/18/2012 6:58:06 PM
Surr: Dibromofluoromethane	101	70-130		%REC	1	10/18/2012 6:58:06 PM
Surr: Toluene-d8	92.2	70-130		%REC	1	10/18/2012 6:58:06 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-22 (1.5-2')
Collection Date: 10/16/2012 11:45:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/19/2012 12:34:28 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/19/2012 12:34:28 PM
Surr: DNOP	95.5	77.6-140		%REC	1	10/19/2012 12:34:28 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/25/2012 4:51:59 AM
Surr: BFB	88.6	84-116		%REC	1	10/25/2012 4:51:59 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 6:57:23 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 6:25:49 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 6:25:49 PM
Barium	500	2.0		mg/Kg	20	10/25/2012 6:28:40 PM
Beryllium	0.69	0.30		mg/Kg	2	10/25/2012 6:25:49 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 6:25:49 PM
Chromium	9.8	0.60		mg/Kg	2	10/25/2012 6:25:49 PM
Cobalt	3.8	0.60		mg/Kg	2	10/25/2012 6:25:49 PM
Iron	14000	500		mg/Kg	500	10/31/2012 2:03:13 PM
Lead	2.4	0.50		mg/Kg	2	10/25/2012 6:25:49 PM
Manganese	330	2.0		mg/Kg	20	10/25/2012 6:28:40 PM
Nickel	6.9	1.0		mg/Kg	2	10/25/2012 6:25:49 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 6:25:49 PM
Silver	ND	0.50		mg/Kg	2	10/31/2012 2:00:20 PM
Vanadium	18	5.0		mg/Kg	2	10/25/2012 6:25:49 PM
Zinc	15	5.0		mg/Kg	2	10/25/2012 6:25:49 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Aniline	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Anthracene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Azobenzene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/24/2012 12:00:35 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-22 (1.5-2')
Collection Date: 10/16/2012 11:45:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/24/2012 12:00:35 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Carbazole	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/24/2012 12:00:35 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/24/2012 12:00:35 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/24/2012 12:00:35 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Chrysene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/24/2012 12:00:35 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/24/2012 12:00:35 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/24/2012 12:00:35 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/24/2012 12:00:35 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/24/2012 12:00:35 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/24/2012 12:00:35 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/24/2012 12:00:35 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/24/2012 12:00:35 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/24/2012 12:00:35 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Fluorene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Isophorone	ND	0.50		mg/Kg	1	10/24/2012 12:00:35 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/24/2012 12:00:35 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Naphthalene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-22 (1.5-2')
Collection Date: 10/16/2012 11:45:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/24/2012 12:00:35 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/24/2012 12:00:35 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/24/2012 12:00:35 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/24/2012 12:00:35 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Phenol	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Pyrene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Pyridine	ND	0.50		mg/Kg	1	10/24/2012 12:00:35 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/24/2012 12:00:35 AM
Surr: 2,4,6-Tribromophenol	64.0	21.3-145		%REC	1	10/24/2012 12:00:35 AM
Surr: 2-Fluorobiphenyl	60.0	20-131		%REC	1	10/24/2012 12:00:35 AM
Surr: 2-Fluorophenol	53.3	11.9-130		%REC	1	10/24/2012 12:00:35 AM
Surr: 4-Terphenyl-d14	60.2	25.1-149		%REC	1	10/24/2012 12:00:35 AM
Surr: Nitrobenzene-d5	62.0	25.6-137		%REC	1	10/24/2012 12:00:35 AM
Surr: Phenol-d5	58.3	20.3-132		%REC	1	10/24/2012 12:00:35 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00192	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Toluene	0.00129	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Ethylbenzene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Xylenes, Total	ND	0.00176		mg/Kg	1	10/18/2012 7:28:54 PM
Methyl tert-butyl ether (MTBE)	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,2,4-Trimethylbenzene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,3,5-Trimethylbenzene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,2-Dichloroethane (EDC)	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,2-Dibromoethane (EDB)	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Naphthalene	ND	0.00176		mg/Kg	1	10/18/2012 7:28:54 PM
1-Methylnaphthalene	ND	0.00351		mg/Kg	1	10/18/2012 7:28:54 PM
2-Methylnaphthalene	ND	0.00351		mg/Kg	1	10/18/2012 7:28:54 PM
Acetone	0.0242	0.00878		mg/Kg	1	10/18/2012 7:28:54 PM
Bromobenzene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Bromodichloromethane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Bromoform	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Bromomethane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
2-Butanone	ND	0.00878		mg/Kg	1	10/18/2012 7:28:54 PM
Carbon tetrachloride	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Chlorobenzene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Chloroethane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-22 (1.5-2')
Collection Date: 10/16/2012 11:45:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Chloromethane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
2-Chlorotoluene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Carbon disulfide	ND	0.00878		mg/Kg	1	10/18/2012 7:28:54 PM
4-Chlorotoluene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
cis-1,2-DCE	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
cis-1,3-Dichloropropene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,2-Dibromo-3-chloropropane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Dibromochloromethane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Dibromomethane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,2-Dichlorobenzene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,3-Dichlorobenzene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,4-Dichlorobenzene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Dichlorodifluoromethane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,1-Dichloroethane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,1-Dichloroethene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,2-Dichloropropane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,3-Dichloropropane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
2,2-Dichloropropane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,1-Dichloropropene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Hexachlorobutadiene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Isopropylbenzene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
4-Isopropyltoluene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Methylene chloride	ND	0.00264		mg/Kg	1	10/18/2012 7:28:54 PM
n-Butylbenzene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
2-Hexanone	ND	0.00878		mg/Kg	1	10/18/2012 7:28:54 PM
n-Propylbenzene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
sec-Butylbenzene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Styrene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
4-Methyl-2-pentanone	ND	0.00878		mg/Kg	1	10/18/2012 7:28:54 PM
tert-Butylbenzene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,1,1,2-Tetrachloroethane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,1,2,2-Tetrachloroethane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Tetrachloroethene (PCE)	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
trans-1,2-DCE	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
trans-1,3-Dichloropropene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,2,3-Trichlorobenzene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,2,4-Trichlorobenzene	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,1,1-Trichloroethane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
1,1,2-Trichloroethane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Trichloroethene (TCE)	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Trichlorofluoromethane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210858-007 **Matrix:** SOIL

Client Sample ID: SWMU 1-22 (1.5-2')
Collection Date: 10/16/2012 11:45:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Vinyl chloride	ND	0.000878		mg/Kg	1	10/18/2012 7:28:54 PM
Surr: 1,2-Dichloroethane-d4	88.2	70-130		%REC	1	10/18/2012 7:28:54 PM
Surr: 4-Bromofluorobenzene	96.2	70-130		%REC	1	10/18/2012 7:28:54 PM
Surr: Dibromofluoromethane	94.2	70-130		%REC	1	10/18/2012 7:28:54 PM
Surr: Toluene-d8	92.7	70-130		%REC	1	10/18/2012 7:28:54 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MeOH Blank
Project: SWMU NO.1
Collection Date:
Lab ID: 1210858-008
Matrix: MEOH (SOIL)
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/26/2012 2:33:06 AM
Surr: BFB	98.8	84-116		%REC	1	10/26/2012 2:33:06 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
Toluene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
Ethylbenzene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
Naphthalene	ND	0.10		mg/Kg	1	10/24/2012 7:30:31 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/24/2012 7:30:31 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/24/2012 7:30:31 PM
Acetone	ND	0.75		mg/Kg	1	10/24/2012 7:30:31 PM
Bromobenzene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
Bromoform	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
Bromomethane	ND	0.15		mg/Kg	1	10/24/2012 7:30:31 PM
2-Butanone	ND	0.50		mg/Kg	1	10/24/2012 7:30:31 PM
Carbon disulfide	ND	0.50		mg/Kg	1	10/24/2012 7:30:31 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	10/24/2012 7:30:31 PM
Chlorobenzene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
Chloroethane	ND	0.10		mg/Kg	1	10/24/2012 7:30:31 PM
Chloroform	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
Chloromethane	ND	0.15		mg/Kg	1	10/24/2012 7:30:31 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	10/24/2012 7:30:31 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
Dibromomethane	ND	0.10		mg/Kg	1	10/24/2012 7:30:31 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	10/24/2012 7:30:31 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MeOH Blank
Project: SWMU NO.1
Collection Date:
Lab ID: 1210858-008
Matrix: MEOH (SOIL)
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
2,2-Dichloropropane	ND	0.10		mg/Kg	1	10/24/2012 7:30:31 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	10/24/2012 7:30:31 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	10/24/2012 7:30:31 PM
2-Hexanone	ND	0.50		mg/Kg	1	10/24/2012 7:30:31 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	10/24/2012 7:30:31 PM
Methylene chloride	ND	0.15		mg/Kg	1	10/24/2012 7:30:31 PM
n-Butylbenzene	ND	0.15		mg/Kg	1	10/24/2012 7:30:31 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
Styrene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	10/24/2012 7:30:31 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	10/24/2012 7:30:31 PM
Vinyl chloride	ND	0.050		mg/Kg	1	10/24/2012 7:30:31 PM
Xylenes, Total	ND	0.10		mg/Kg	1	10/24/2012 7:30:31 PM
Surr: 1,2-Dichloroethane-d4	92.0	70-130		%REC	1	10/24/2012 7:30:31 PM
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	1	10/24/2012 7:30:31 PM
Surr: Dibromofluoromethane	91.8	70-130		%REC	1	10/24/2012 7:30:31 PM
Surr: Toluene-d8	96.2	70-130		%REC	1	10/24/2012 7:30:31 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 121019047
Project Name: 1210858

Analytical Results Report

Sample Number 121019047-001 | **Sampling Date** 10/16/2012 | **Date/Time Received** 10/19/2012 1:14 PM
Client Sample ID 1210858-001D / SWMU 1-18 (0-0.5) | **Sampling Time** 10:00 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.261	10/30/2012	CRW	EPA 335.4	
%moisture	4.7	Percent		10/30/2012	TGT	%moisture	

Sample Number 121019047-002 | **Sampling Date** 10/16/2012 | **Date/Time Received** 10/19/2012 1:14 PM
Client Sample ID 1210858-002D / SWMU 1-18 (1.5-2) | **Sampling Time** 10:10 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.282	10/30/2012	CRW	EPA 335.4	
%moisture	11.7	Percent		10/30/2012	TGT	%moisture	

Sample Number 121019047-003 | **Sampling Date** 10/16/2012 | **Date/Time Received** 10/19/2012 1:14 PM
Client Sample ID 1210858-003D / SWMU 1-19 (0-0.5) | **Sampling Time** 10:35 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.26	10/30/2012	CRW	EPA 335.4	
%moisture	4.2	Percent		10/30/2012	TGT	%moisture	

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 121019047
Project Name: 1210858

Analytical Results Report

Sample Number 121019047-004 **Sampling Date** 10/16/2012 **Date/Time Received** 10/19/2012 1:14 PM
Client Sample ID 1210858-004D / SWMU 1-21 (0-0.5) **Sampling Time** 11:05 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.274	10/30/2012	CRW	EPA 335.4	
%moisture	8.7	Percent		10/30/2012	TGT	%moisture	

Sample Number 121019047-005 **Sampling Date** 10/16/2012 **Date/Time Received** 10/19/2012 1:14 PM
Client Sample ID 1210858-005D / SWMU 1-21 (0-0.5) DUP **Sampling Time** 11:05 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.266	10/30/2012	CRW	EPA 335.4	
%moisture	6.4	Percent		10/30/2012	TGT	%moisture	

Sample Number 121019047-006 **Sampling Date** 10/16/2012 **Date/Time Received** 10/19/2012 1:14 PM
Client Sample ID 1210858-006D / SWMU 1-22 (0-0.5) **Sampling Time** 11:35 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.262	10/30/2012	CRW	EPA 335.4	
%moisture	4.9	Percent		10/30/2012	TGT	%moisture	

Anatek Labs, Inc.

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 121019047
Project Name: 1210858

Analytical Results Report

Sample Number	121019047-007	**Sampling Date**	10/16/2012	**Date/Time Received**	10/19/2012 1:14 PM
Client Sample ID	1210858-007D / SWMU 1-22 (1.5-2)	**Sampling Time**	11:45 AM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.273	10/30/2012	CRW	EPA 335.4	
%moisture	10	Percent		10/30/2012	TGT	%moisture	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210858**

13-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4397**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4397**	RunNo: **6325**
Prep Date: **10/18/2012**	Analysis Date: **10/18/2012**	SeqNo: **182283** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		103	77.6	140			

Sample ID **LCS-4397**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4397**	RunNo: **6325**
Prep Date: **10/18/2012**	Analysis Date: **10/18/2012**	SeqNo: **182284** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	0	111	52.6	130			
Surr: DNOP	4.3		5.000		86.9	77.6	140			

Sample ID **MB-4404**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4404**	RunNo: **6356**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **182984** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
r: DNOP	9.6		10.00		95.6	77.6	140			

Sample ID **LCS-4404**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4404**	RunNo: **6356**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **182985** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.3	77.6	140			

Sample ID **1210819-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **4404**	RunNo: **6356**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **183001** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.7		5.899		79.7	77.6	140			

Sample ID **1210819-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **4404**	RunNo: **6356**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **183002** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		6.148		79.2	77.6	140	0	0	

ifiers:

- Value exceeds Maximum Contaminant Level.
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- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210858**

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **PBS**	Batch ID: **R6457**	RunNo: **6457**							
Prep Date:	Analysis Date: **10/24/2012**	SeqNo: **186219**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		91.7	84	116			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **R6457**	RunNo: **6457**							
Prep Date:	Analysis Date: **10/24/2012**	SeqNo: **186225**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	94.5	74	117			
Surr: BFB	930		1000		93.1	84	116			

Sample ID **1210811-011BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **BatchQC**	Batch ID: **R6457**	RunNo: **6457**							
Prep Date:	Analysis Date: **10/24/2012**	SeqNo: **186249**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	17	5.0	15.90	0	110	70	130	12.7	22.1	
Surr: BFB	590		636.0		93.2	84	116	0	0	

Sample ID **MB-4474**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **PBS**	Batch ID: **4474**	RunNo: **6487**							
Prep Date: **10/23/2012**	Analysis Date: **10/25/2012**	SeqNo: **187625**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		95.0	84	116			

Sample ID **LCS-4474**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **4474**	RunNo: **6487**							
Prep Date: **10/23/2012**	Analysis Date: **10/25/2012**	SeqNo: **187626**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	102	74	117			
Surr: BFB	1000		1000		100	84	116			

Sample ID **1210A08-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **BatchQC**	Batch ID: **4474**	RunNo: **6487**							
Prep Date: **10/23/2012**	Analysis Date: **10/25/2012**	SeqNo: **187638**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	4.9	24.34	11.22	90.8	70	130			
Surr: BFB	1100		973.7		117	84	116			S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210858**

13-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210A08-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **4474**	RunNo: **6487**
Prep Date: **10/23/2012**	Analysis Date: **10/25/2012**	SeqNo: **187639** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	4.9	24.39	11.22	89.9	70	130	0.479	22.1	
Surr: BFB	1100		975.6		115	84	116	0	0	

Sample ID **1210811-011BMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6457**	RunNo: **6487**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187647** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	15	5.0	15.91	0	96.6	70	130			
Surr: BFB	650		636.4		102	84	116			

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1210858**

Hall Environmental Analysis Laboratory, Inc.

13-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **mb-4362**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **4362**	RunNo: **6485**
Prep Date: **10/17/2012**	Analysis Date: **10/24/2012**	SeqNo: **186696** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.3	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.1	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.5	70	130			
Surr: Toluene-d8	0.49		0.5000		98.5	70	130			

Sample ID **lcs-4362**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **4362**	RunNo: **6485**
Prep Date: **10/17/2012**	Analysis Date: **10/24/2012**	SeqNo: **186792** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.4	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.7	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.1	70	130			
Surr: Toluene-d8	0.47		0.5000		94.6	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210858**

13-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4393**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4393**	RunNo: **6360**
Prep Date: **10/18/2012**	Analysis Date: **10/18/2012**	SeqNo: **182928** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
Naphthalene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
anone	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210858**

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4393**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4393**	RunNo: **6360**
Prep Date: **10/18/2012**	Analysis Date: **10/18/2012**	SeqNo: **182928** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	46.1		50.00		92.1	70	130			
Surr: 4-Bromofluorobenzene	44.8		50.00		89.6	70	130			
Surr: Dibromofluoromethane	53.0		50.00		106	70	130			
Surr: Toluene-d8	42.4		50.00		84.8	70	130			

Sample ID **lcs-4393**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4393**	RunNo: **6360**
Prep Date: **10/18/2012**	Analysis Date: **10/18/2012**	SeqNo: **182930** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	8.87	1.00	10.00	0	88.7	60	140			
Toluene	8.50	1.00	10.00	0	85.0	60	140			
Chlorobenzene	9.38	1.00	10.00	0	93.8	60	140			
1,1-Dichloroethene	11.0	1.00	10.00	0	110	60	140			
Trichloroethene (TCE)	7.70	1.00	10.00	0	77.0	60	140			
Surr: 1,2-Dichloroethane-d4	44.9		50.00		89.8	70	130			
Surr: 4-Bromofluorobenzene	40.9		50.00		81.7	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210858**

13-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	lcs-4393	SampType:	LCS	TestCode:	Method 8260B/5035LOW: VOLATILES
Client ID:	LCSS	Batch ID:	4393	RunNo:	6360
Prep Date:	10/18/2012	Analysis Date:	10/18/2012	SeqNo:	182930
Units:	mg/Kg				

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	50.4		50.00		101	70	130			
Surr: Toluene-d8	41.1		50.00		82.2	70	130			

Sample ID	mb-4419	SampType:	MBLK	TestCode:	Method 8260B/5035LOW: VOLATILES
Client ID:	PBS	Batch ID:	4419	RunNo:	6365
Prep Date:	10/19/2012	Analysis Date:	10/19/2012	SeqNo:	183060
Units:	mg/Kg				

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1.2-Dibromoethane (EDB)	ND	0.00100								
'halene	ND	0.00200								
...ethylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
2-Butanone	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210858**

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4419**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4419**	RunNo: **6365**
Prep Date: **10/19/2012**	Analysis Date: **10/19/2012**	SeqNo: **183060** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	0.00320	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	43.7		50.00		87.4	70	130			
Surr: 4-Bromofluorobenzene	43.0		50.00		85.9	70	130			
Surr: Dibromofluoromethane	50.0		50.00		100	70	130			
Surr: Toluene-d8	51.0		50.00		102	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210858**

13-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4419**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4419**	RunNo: **6365**
Prep Date: **10/19/2012**	Analysis Date: **10/19/2012**	SeqNo: **183062** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	11.7	1.00	12.50	0	93.9	60	140			
Toluene	10.2	1.00	12.50	0	82.0	60	140			
Chlorobenzene	11.9	1.00	12.50	0	94.9	60	140			
1,1-Dichloroethene	14.5	1.00	12.50	0	116	60	140			
Trichloroethene (TCE)	9.39	1.00	12.50	0	75.1	60	140			
Surr: 1,2-Dichloroethane-d4	47.4		50.00		94.9	70	130			
Surr: 4-Bromofluorobenzene	41.6		50.00		83.2	70	130			
Surr: Dibromofluoromethane	46.8		50.00		93.6	70	130			
Surr: Toluene-d8	46.1		50.00		92.3	70	130			

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1210858**

Hall Environmental Analysis Laboratory, Inc.

13-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **lcs-4422**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185414** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	74.7	49.7	98.1			
4-Chloro-3-methylphenol	2.6	0.50	3.330	0	76.9	43.8	89.1			
2-Chlorophenol	2.5	0.20	3.330	0	75.3	41.1	96.9			
1,4-Dichlorobenzene	1.3	0.20	1.670	0	78.0	41	97.4			
2,4-Dinitrotoluene	1.3	0.50	1.670	0	79.3	44.4	104			
N-Nitrosodi-n-propylamine	1.4	0.20	1.670	0	83.1	39.1	86.9			
4-Nitrophenol	2.4	0.25	3.330	0	73.5	44.2	107			
Pentachlorophenol	2.1	0.40	3.330	0	61.6	36.2	80			
Phenol	2.4	0.20	3.330	0	72.5	42.7	92.7			
Pyrene	1.3	0.20	1.670	0	77.3	34.7	98.8			
1,2,4-Trichlorobenzene	1.5	0.20	1.670	0	91.6	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.4		3.330		103	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.670		95.5	20	131			
Surr: 2-Fluorophenol	2.8		3.330		83.7	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		79.6	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.670		99.9	25.6	137			
Surr: Phenol-d5	3.0		3.330		89.0	20.3	132			

Sample ID **mb-4422**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210858**

13-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4422**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
chlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210858**

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4422** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **PBS** Batch ID: **4422** RunNo: **6445**

Prep Date: **10/19/2012** Analysis Date: **10/23/2012** SeqNo: **185416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.9		3.330		117	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.670		98.4	20	131			
Surr: 2-Fluorophenol	3.1		3.330		91.6	11.9	130			
Surr: 4-Terphenyl-d14	1.5		1.670		91.7	25.1	149			
Surr: Nitrobenzene-d5	1.8		1.670		109	25.6	137			
Surr: Phenol-d5	3.2		3.330		96.3	20.3	132			

Sample ID **1210858-004Cms** SampType: **MS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **SWMU 1-21 (0-0.5')** Batch ID: **4422** RunNo: **6445**

Prep Date: **10/19/2012** Analysis Date: **10/23/2012** SeqNo: **185433** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.659	0	69.3	25.6	142			
4-Chloro-3-methylphenol	2.2	0.50	3.309	0	67.6	63.7	100			
2-Chlorophenol	2.0	0.20	3.309	0	61.7	22.2	126			
1,4-Dichlorobenzene	1.1	0.20	1.659	0	63.6	12.4	115			
2,4-Dinitrotoluene	1.2	0.50	1.659	0	74.6	14.9	142			
N-Nitrosodi-n-propylamine	1.1	0.20	1.659	0	65.9	13.9	136			
4-Nitrophenol	2.2	0.25	3.309	0.09121	63.6	36.7	130			
Pentachlorophenol	1.9	0.40	3.309	0	56.5	15.8	113			
Phenol	2.1	0.20	3.309	0	63.9	25.1	124			
Pyrene	1.1	0.20	1.659	0	68.6	35.8	124			
1,2,4-Trichlorobenzene	1.3	0.20	1.659	0	78.0	30	113			
Surr: 2,4,6-Tribromophenol	3.0		3.309		90.3	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.659		90.0	20	131			
Surr: 2-Fluorophenol	2.5		3.309		74.2	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.659		80.0	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.659		101	25.6	137			
Surr: Phenol-d5	2.8		3.309		84.0	20.3	132			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210858**

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210858-004Cmsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **SWMU 1-21 (0-0.5')**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185434** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.681	0	71.3	25.6	142	4.05	22	
4-Chloro-3-methylphenol	2.3	0.50	3.351	0	69.5	63.7	100	4.10	27.3	
2-Chlorophenol	2.3	0.20	3.351	0	68.2	22.2	126	11.4	26.3	
1,4-Dichlorobenzene	1.1	0.20	1.681	0	63.4	12.4	115	1.02	27.4	
2,4-Dinitrotoluene	1.3	0.50	1.681	0	77.0	14.9	142	4.43	27.4	
N-Nitrosodi-n-propylamine	1.3	0.20	1.681	0	75.9	13.9	136	15.3	22.6	
4-Nitrophenol	2.3	0.25	3.351	0.09121	64.9	36.7	130	3.21	20	
Pentachlorophenol	2.0	0.40	3.351	0	59.9	15.8	113	7.18	27.1	
Phenol	2.2	0.20	3.351	0	66.5	25.1	124	5.18	32.2	
Pyrene	1.2	0.20	1.681	0	70.8	35.8	124	4.36	29.5	
1,2,4-Trichlorobenzene	1.4	0.20	1.681	0	80.5	30	113	4.34	27.8	
Surr: 2,4,6-Tribromophenol	3.1		3.351		93.6	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.5		1.681		91.0	20	131	0	0	
Surr: 2-Fluorophenol	2.5		3.351		75.3	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.4		1.681		81.4	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.6		1.681		96.9	25.6	137	0	0	
Surr: Phenol-d5	2.9		3.351		85.9	20.3	132	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210858**

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4426**	SampType: **MBLK**	TestCode: **EPA Method 7471: Mercury**
Client ID: **PBS**	Batch ID: **4426**	RunNo: **6443**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185363** Units: **mg/kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID **LCS-4426**	SampType: **LCS**	TestCode: **EPA Method 7471: Mercury**
Client ID: **LCSS**	Batch ID: **4426**	RunNo: **6443**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185364** Units: **mg/kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	101	80	120			

Sample ID **1210859-002CMS**	SampType: **MS**	TestCode: **EPA Method 7471: Mercury**
Client ID: **BatchQC**	Batch ID: **4426**	RunNo: **6443**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185391** Units: **mg/kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1654	0.01134	102	75	125			

Sample ID **1210859-002CMSD**	SampType: **MSD**	TestCode: **EPA Method 7471: Mercury**
Client ID: **BatchQC**	Batch ID: **4426**	RunNo: **6443**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185392** Units: **mg/kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1685	0.01134	99.0	75	125	1.06	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210858**

13-Nov-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4441**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **4441**	RunNo: **6493**
Prep Date: **10/22/2012**	Analysis Date: **10/25/2012**	SeqNo: **186822** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Iron	ND	1.0								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID **LCS-4441**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **4441**	RunNo: **6493**
Prep Date: **10/22/2012**	Analysis Date: **10/25/2012**	SeqNo: **186823** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	23	2.5	25.00	0	92.2	80	120			
Arsenic	23	2.5	25.00	0	93.7	80	120			
Barium	23	0.10	25.00	0	92.2	80	120			
Beryllium	24	0.15	25.00	0	95.1	80	120			
Cadmium	23	0.10	25.00	0	92.8	80	120			
Chromium	23	0.30	25.00	0	91.8	80	120			
Cobalt	22	0.30	25.00	0	88.9	80	120			
Iron	23	1.0	25.00	0	93.7	80	120			
Lead	23	0.25	25.00	0	91.3	80	120			
Manganese	23	0.10	25.00	0.04450	90.3	80	120			
Nickel	22	0.50	25.00	0	87.6	80	120			
Selenium	22	2.5	25.00	0	87.2	80	120			
Vanadium	24	2.5	25.00	0	95.4	80	120			
Zinc	23	2.5	25.00	0	90.7	80	120			

Sample ID **1210656-001CMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC**	Batch ID: **4441**	RunNo: **6493**
Prep Date: **10/22/2012**	Analysis Date: **10/25/2012**	SeqNo: **186932** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	5.2	5.0	24.67	0	20.9	75	125			S
Arsenic	23	5.0	24.67	2.167	85.1	75	125			

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210858**

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210656-001CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **BatchQC** Batch ID: **4441** RunNo: **6493**

Prep Date: **10/22/2012** Analysis Date: **10/25/2012** SeqNo: **186932** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	21	0.30	24.67	0.6108	83.1	75	125			
Cadmium	19	0.20	24.67	0	78.2	75	125			
Chromium	31	0.60	24.67	9.563	87.0	75	125			
Cobalt	21	0.60	24.67	3.401	71.6	75	125			S
Lead	22	0.50	24.67	4.192	72.5	75	125			S
Nickel	24	1.0	24.67	5.943	73.5	75	125			S
Selenium	11	5.0	24.67	0	43.9	75	125			S
Vanadium	41	5.0	24.67	17.94	92.0	75	125			

Sample ID **1210656-001CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **BatchQC** Batch ID: **4441** RunNo: **6493**

Prep Date: **10/22/2012** Analysis Date: **10/25/2012** SeqNo: **186933** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	5.0	24.23	0	20.3	75	125	200	20	S
Arsenic	23	5.0	24.23	2.167	87.5	75	125	0.929	20	
Beryllium	21	0.30	24.23	0.6108	85.4	75	125	0.909	20	
Cadmium	20	0.20	24.23	0	82.3	75	125	3.30	20	
Chromium	30	0.60	24.23	9.563	83.1	75	125	4.37	20	
Cobalt	21	0.60	24.23	3.401	72.9	75	125	0.0820	20	S
Lead	21	0.50	24.23	4.192	70.5	75	125	3.76	20	S
Nickel	24	1.0	24.23	5.943	75.3	75	125	0.450	20	
Selenium	13	5.0	24.23	0	54.1	75	125	19.1	20	S
Vanadium	39	5.0	24.23	17.94	88.1	75	125	3.41	20	

Sample ID **MB-4441** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **PBS** Batch ID: **4441** RunNo: **6546**

Prep Date: **10/22/2012** Analysis Date: **10/29/2012** SeqNo: **188994** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.25								

Sample ID **LCS-4441** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **LCSS** Batch ID: **4441** RunNo: **6546**

Prep Date: **10/22/2012** Analysis Date: **10/29/2012** SeqNo: **188995** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	5.3	0.25	5.000	0	106	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210858**

13-Nov-12

ent: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210656-001CMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC**	Batch ID: **4441**	RunNo: **6598**
Prep Date: **10/22/2012**	Analysis Date: **10/31/2012**	SeqNo: **190745** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	4.2	0.50	4.935	0	86.1	75	125			

Sample ID **1210656-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC**	Batch ID: **4441**	RunNo: **6598**
Prep Date: **10/22/2012**	Analysis Date: **10/31/2012**	SeqNo: **190746** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	4.2	0.50	4.847	0	87.1	75	125	0.553	20	

lifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1210858

Received by/date: LM 10/18/12

Logged By: **Michelle Garcia** 10/18/2012 8:00:00 AM — Michelle Garcia

Completed By: **Michelle Garcia** 10/18/2012 8:56:17 AM — Michelle Garcia

Reviewed By: 10/18/12

Chain of Custody

1. Were seals intact?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	FedEx		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
X Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
X EDD (Type) EXCEL

Turn-Around Time:
X Standard ☐ Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: ☐ Yes ☐ No
Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/16/12	1000	SOIL	SWMU 1-18 (0-0.5')	2 VIALS	SOBI	-001										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1010		SWMU 1-18 (1-1.5')	2 VIALS	SOBI	-002										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1035		SWMU 1-19 (0-0.5')	2 VIALS	SOBI	-003										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1105		SWMU 1-21 (0-0.5')	2 VIALS	SOBI	-004										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/17/12	0700			10/16/12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: SWMU No. 1

Project #:

Project Manager: SCOTT CROUCH - RPS

Sampler: TRACY PAYNE - RPS

On Ice: ☐ Yes ☐ No

Sample Temperature: 1.1°

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 121	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/16/12	1105	SOIL	SWMU 1-21 (0-0.5')	2 VIALS	8081	-005										X						
			DUP	2 VIALS	MeOH											X						
	↓		↓	3 JARS	—											X	X	X	X			
	1135		SWMU 1-22 (0-0.5')	2 VIALS	8081	-006										X						
	↓		↓	2 VIALS	MeOH											X						
	↓		↓	3 JARS	—											X	X	X	X			
	1145		SWMU 1-22 (1.5-2')	2 VIALS	8081	-007										X						
	↓		↓	2 VIALS	MeOH											X						
	↓	↓	↓	3 JARS	—											X	X	X	X			
↓	—	MeOH	MeOH BLANK	2 VIALS	MeOH	-008										X						

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/17/12	0700	[signature]	[signature]	10/18/12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 13, 2012

Scott Crouch

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.1 OrderNo.: 1210859

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/18/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1210859**
Date Reported: **11/13/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-23 (0-0.5')
Collection Date: 10/16/2012 12:10:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/21/2012 6:39:57 AM
Motor Oil Range Organics (MRO)	ND	52		mg/Kg	1	10/21/2012 6:39:57 AM
Surr: DNOP	105	77.6-140		%REC	1	10/21/2012 6:39:57 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/26/2012 3:01:49 AM
Surr: BFB	98.9	84-116		%REC	1	10/26/2012 3:01:49 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.11	0.033		mg/kg	1	10/23/2012 6:59:12 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 6:49:19 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 6:49:19 PM
Barium	670	2.0		mg/Kg	20	10/25/2012 6:52:13 PM
Beryllium	0.69	0.30		mg/Kg	2	10/25/2012 6:49:19 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 6:49:19 PM
Chromium	16	0.60		mg/Kg	2	10/25/2012 6:49:19 PM
Cobalt	4.0	0.60		mg/Kg	2	10/25/2012 6:49:19 PM
Iron	14000	500		mg/Kg	500	10/31/2012 2:08:56 PM
Lead	3.0	0.50		mg/Kg	2	10/25/2012 6:49:19 PM
Manganese	980	2.0		mg/Kg	20	10/25/2012 6:52:13 PM
Nickel	7.9	1.0		mg/Kg	2	10/25/2012 6:49:19 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 6:49:19 PM
Silver	ND	0.50		mg/Kg	2	10/31/2012 2:06:02 PM
Vanadium	19	5.0		mg/Kg	2	10/25/2012 6:49:19 PM
Zinc	21	5.0		mg/Kg	2	10/25/2012 6:49:19 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Acenaphthylene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Aniline	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Anthracene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Azobenzene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Benzoic acid	ND	1.0		mg/Kg	1	10/24/2012 6:26:18 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-23 (0-0.5')
Collection Date: 10/16/2012 12:10:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/24/2012 6:26:18 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Carbazole	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/24/2012 6:26:18 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/24/2012 6:26:18 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/24/2012 6:26:18 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Chrysene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/24/2012 6:26:18 PM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/24/2012 6:26:18 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Dibenzofuran	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/24/2012 6:26:18 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/24/2012 6:26:18 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/24/2012 6:26:18 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/24/2012 6:26:18 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/24/2012 6:26:18 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/24/2012 6:26:18 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/24/2012 6:26:18 PM
Fluoranthene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Fluorene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Hexachloroethane	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Isophorone	ND	1.0		mg/Kg	1	10/24/2012 6:26:18 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
2-Methylphenol	ND	1.0		mg/Kg	1	10/24/2012 6:26:18 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Naphthalene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-23 (0-0.5')
Collection Date: 10/16/2012 12:10:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/24/2012 6:26:18 PM
Nitrobenzene	ND	1.0		mg/Kg	1	10/24/2012 6:26:18 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/24/2012 6:26:18 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/24/2012 6:26:18 PM
Phenanthrene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Phenol	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Pyrene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Pyridine	ND	1.0		mg/Kg	1	10/24/2012 6:26:18 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/24/2012 6:26:18 PM
Surr: 2,4,6-Tribromophenol	95.8	21.3-145		%REC	1	10/24/2012 6:26:18 PM
Surr: 2-Fluorobiphenyl	96.3	20-131		%REC	1	10/24/2012 6:26:18 PM
Surr: 2-Fluorophenol	91.1	11.9-130		%REC	1	10/24/2012 6:26:18 PM
Surr: 4-Terphenyl-d14	92.6	25.1-149		%REC	1	10/24/2012 6:26:18 PM
Surr: Nitrobenzene-d5	105	25.6-137		%REC	1	10/24/2012 6:26:18 PM
Surr: Phenol-d5	85.5	20.3-132		%REC	1	10/24/2012 6:26:18 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00193	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Toluene	0.00211	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Ethylbenzene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Xylenes, Total	0.00180	0.00171		mg/Kg	1	10/18/2012 7:59:44 PM
Methyl tert-butyl ether (MTBE)	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,2,4-Trimethylbenzene	0.00102	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,3,5-Trimethylbenzene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,2-Dichloroethane (EDC)	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,2-Dibromoethane (EDB)	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Naphthalene	ND	0.00171		mg/Kg	1	10/18/2012 7:59:44 PM
1-Methylnaphthalene	ND	0.00342		mg/Kg	1	10/18/2012 7:59:44 PM
2-Methylnaphthalene	ND	0.00342		mg/Kg	1	10/18/2012 7:59:44 PM
Acetone	0.0502	0.00855		mg/Kg	1	10/18/2012 7:59:44 PM
Bromobenzene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Bromodichloromethane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Bromoform	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Bromomethane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
2-Butanone	0.00903	0.00855		mg/Kg	1	10/18/2012 7:59:44 PM
Carbon tetrachloride	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Chlorobenzene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Chloroethane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-001 **Matrix:** SOIL

Client Sample ID: SWMU 1-23 (0-0.5')
Collection Date: 10/16/2012 12:10:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Chloromethane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
2-Chlorotoluene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Carbon disulfide	0.0156	0.00855		mg/Kg	1	10/18/2012 7:59:44 PM
4-Chlorotoluene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
cis-1,2-DCE	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
cis-1,3-Dichloropropene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,2-Dibromo-3-chloropropane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Dibromochloromethane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Dibromomethane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,2-Dichlorobenzene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,3-Dichlorobenzene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,4-Dichlorobenzene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Dichlorodifluoromethane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,1-Dichloroethane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,1-Dichloroethene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,2-Dichloropropane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,3-Dichloropropane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
2,2-Dichloropropane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,1-Dichloropropene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Hexachlorobutadiene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Isopropylbenzene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
4-Isopropyltoluene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Methylene chloride	ND	0.00257		mg/Kg	1	10/18/2012 7:59:44 PM
n-Butylbenzene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
2-Hexanone	ND	0.00855		mg/Kg	1	10/18/2012 7:59:44 PM
n-Propylbenzene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
sec-Butylbenzene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Styrene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
4-Methyl-2-pentanone	ND	0.00855		mg/Kg	1	10/18/2012 7:59:44 PM
tert-Butylbenzene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,1,1,2-Tetrachloroethane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,1,2,2-Tetrachloroethane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Tetrachloroethene (PCE)	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
trans-1,2-DCE	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
trans-1,3-Dichloropropene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,2,3-Trichlorobenzene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,2,4-Trichlorobenzene	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,1,1-Trichloroethane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
1,1,2-Trichloroethane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Trichloroethene (TCE)	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Trichlorofluoromethane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-23 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/16/2012 12:10:00 PM
Lab ID: 1210859-001 **Matrix:** SOIL **Received Date:** 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Vinyl chloride	ND	0.000855		mg/Kg	1	10/18/2012 7:59:44 PM
Surr: 1,2-Dichloroethane-d4	99.1	70-130		%REC	1	10/18/2012 7:59:44 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	10/18/2012 7:59:44 PM
Surr: Dibromofluoromethane	106	70-130		%REC	1	10/18/2012 7:59:44 PM
Surr: Toluene-d8	84.7	70-130		%REC	1	10/18/2012 7:59:44 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-39 (0-0.5')
Collection Date: 10/16/2012 12:35:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/19/2012 12:20:15 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/19/2012 12:20:15 PM
Surr: DNOP	99.5	77.6-140		%REC	1	10/19/2012 12:20:15 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/26/2012 3:30:32 AM
Surr: BFB	99.7	84-116		%REC	1	10/26/2012 3:30:32 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/23/2012 7:00:59 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 7:00:48 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 7:00:48 PM
Barium	450	2.0		mg/Kg	20	10/25/2012 7:03:53 PM
Beryllium	0.71	0.30		mg/Kg	2	10/25/2012 7:00:48 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 7:00:48 PM
Chromium	10	0.60		mg/Kg	2	10/25/2012 7:00:48 PM
Cobalt	3.9	0.60		mg/Kg	2	10/25/2012 7:00:48 PM
Iron	18000	500		mg/Kg	500	10/31/2012 2:26:50 PM
Lead	4.6	0.50		mg/Kg	2	10/25/2012 7:00:48 PM
Manganese	580	2.0		mg/Kg	20	10/25/2012 7:03:53 PM
Nickel	6.2	1.0		mg/Kg	2	10/25/2012 7:00:48 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 7:00:48 PM
Silver	ND	0.50		mg/Kg	2	10/31/2012 2:11:46 PM
Vanadium	25	5.0		mg/Kg	2	10/25/2012 7:00:48 PM
Zinc	16	5.0		mg/Kg	2	10/25/2012 7:00:48 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Aniline	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Anthracene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Azobenzene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/24/2012 6:56:31 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-39 (0-0.5')
Collection Date: 10/16/2012 12:35:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/24/2012 6:56:31 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Carbazole	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/24/2012 6:56:31 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/24/2012 6:56:31 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/24/2012 6:56:31 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Chrysene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/24/2012 6:56:31 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/24/2012 6:56:31 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/24/2012 6:56:31 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/24/2012 6:56:31 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/24/2012 6:56:31 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/24/2012 6:56:31 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/24/2012 6:56:31 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/24/2012 6:56:31 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/24/2012 6:56:31 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Fluorene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Isophorone	ND	0.50		mg/Kg	1	10/24/2012 6:56:31 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/24/2012 6:56:31 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Naphthalene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-39 (0-0.5')
Collection Date: 10/16/2012 12:35:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/24/2012 6:56:31 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/24/2012 6:56:31 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/24/2012 6:56:31 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/24/2012 6:56:31 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Phenol	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Pyrene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Pyridine	ND	0.50		mg/Kg	1	10/24/2012 6:56:31 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/24/2012 6:56:31 PM
Surr: 2,4,6-Tribromophenol	84.6	21.3-145		%REC	1	10/24/2012 6:56:31 PM
Surr: 2-Fluorobiphenyl	83.8	20-131		%REC	1	10/24/2012 6:56:31 PM
Surr: 2-Fluorophenol	72.6	11.9-130		%REC	1	10/24/2012 6:56:31 PM
Surr: 4-Terphenyl-d14	79.1	25.1-149		%REC	1	10/24/2012 6:56:31 PM
Surr: Nitrobenzene-d5	91.4	25.6-137		%REC	1	10/24/2012 6:56:31 PM
Surr: Phenol-d5	75.8	20.3-132		%REC	1	10/24/2012 6:56:31 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00189	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Toluene	0.00109	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Ethylbenzene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Xylenes, Total	ND	0.00154		mg/Kg	1	10/18/2012 8:30:32 PM
Methyl tert-butyl ether (MTBE)	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,2,4-Trimethylbenzene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,3,5-Trimethylbenzene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,2-Dichloroethane (EDC)	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,2-Dibromoethane (EDB)	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Naphthalene	ND	0.00154		mg/Kg	1	10/18/2012 8:30:32 PM
1-Methylnaphthalene	ND	0.00308		mg/Kg	1	10/18/2012 8:30:32 PM
2-Methylnaphthalene	ND	0.00308		mg/Kg	1	10/18/2012 8:30:32 PM
Acetone	0.0521	0.00770		mg/Kg	1	10/18/2012 8:30:32 PM
Bromobenzene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Bromodichloromethane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Bromoform	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Bromomethane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
2-Butanone	ND	0.00770		mg/Kg	1	10/18/2012 8:30:32 PM
Carbon tetrachloride	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Chlorobenzene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Chloroethane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-39 (0-0.5')
Collection Date: 10/16/2012 12:35:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Chloromethane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
2-Chlorotoluene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Carbon disulfide	ND	0.00770		mg/Kg	1	10/18/2012 8:30:32 PM
4-Chlorotoluene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
cis-1,2-DCE	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
cis-1,3-Dichloropropene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,2-Dibromo-3-chloropropane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Dibromochloromethane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Dibromomethane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,2-Dichlorobenzene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,3-Dichlorobenzene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,4-Dichlorobenzene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Dichlorodifluoromethane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,1-Dichloroethane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,1-Dichloroethene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,2-Dichloropropane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,3-Dichloropropane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
2,2-Dichloropropane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,1-Dichloropropene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Hexachlorobutadiene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Isopropylbenzene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
4-Isopropyltoluene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Methylene chloride	ND	0.00231		mg/Kg	1	10/18/2012 8:30:32 PM
n-Butylbenzene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
2-Hexanone	ND	0.00770		mg/Kg	1	10/18/2012 8:30:32 PM
n-Propylbenzene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
sec-Butylbenzene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Styrene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
4-Methyl-2-pentanone	ND	0.00770		mg/Kg	1	10/18/2012 8:30:32 PM
tert-Butylbenzene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,1,1,2-Tetrachloroethane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,1,2,2-Tetrachloroethane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Tetrachloroethene (PCE)	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
trans-1,2-DCE	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
trans-1,3-Dichloropropene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,2,3-Trichlorobenzene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,2,4-Trichlorobenzene	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,1,1-Trichloroethane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
1,1,2-Trichloroethane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Trichloroethene (TCE)	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Trichlorofluoromethane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-002 **Matrix:** SOIL

Client Sample ID: SWMU 1-39 (0-0.5')
Collection Date: 10/16/2012 12:35:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Vinyl chloride	ND	0.000770		mg/Kg	1	10/18/2012 8:30:32 PM
Surr: 1,2-Dichloroethane-d4	92.3	70-130		%REC	1	10/18/2012 8:30:32 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	10/18/2012 8:30:32 PM
Surr: Dibromofluoromethane	105	70-130		%REC	1	10/18/2012 8:30:32 PM
Surr: Toluene-d8	84.9	70-130		%REC	1	10/18/2012 8:30:32 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-25 (0-0.5')
Collection Date: 10/16/2012 1:00:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/21/2012 4:42:29 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/21/2012 4:42:29 PM
Surr: DNOP	104	77.6-140		%REC	1	10/21/2012 4:42:29 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/26/2012 3:59:12 AM
Surr: BFB	98.9	84-116		%REC	1	10/26/2012 3:59:12 AM
EPA METHOD 7471: MERCURY						Analyst: **JLF**
Mercury	ND	0.033		mg/Kg	1	11/1/2012 3:57:37 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 7:24:44 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 7:24:44 PM
Barium	370	2.0		mg/Kg	20	10/25/2012 7:27:51 PM
Beryllium	0.53	0.30		mg/Kg	2	10/25/2012 7:24:44 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 7:24:44 PM
Chromium	14	0.60		mg/Kg	2	10/25/2012 7:24:44 PM
Cobalt	3.2	0.60		mg/Kg	2	10/25/2012 7:24:44 PM
Iron	11000	500		mg/Kg	500	10/25/2012 7:30:37 PM
Lead	5.6	0.50		mg/Kg	2	10/25/2012 7:24:44 PM
Manganese	310	2.0		mg/Kg	20	10/25/2012 7:27:51 PM
Nickel	8.6	1.0		mg/Kg	2	10/25/2012 7:24:44 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 7:24:44 PM
Silver	ND	0.25		mg/Kg	1	10/31/2012 2:29:39 PM
Vanadium	21	5.0		mg/Kg	2	10/25/2012 7:24:44 PM
Zinc	27	5.0		mg/Kg	2	10/25/2012 7:24:44 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Acenaphthylene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Aniline	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Anthracene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Azobenzene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/24/2012 7:26:43 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-25 (0-0.5')
Collection Date: 10/16/2012 1:00:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/24/2012 7:26:43 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Carbazole	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/24/2012 7:26:43 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/24/2012 7:26:43 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	10/24/2012 7:26:43 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Chrysene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/24/2012 7:26:43 PM
Di-n-octyl phthalate	ND	2.0		mg/Kg	1	10/24/2012 7:26:43 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Dibenzofuran	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	10/24/2012 7:26:43 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/24/2012 7:26:43 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/24/2012 7:26:43 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/24/2012 7:26:43 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/24/2012 7:26:43 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/24/2012 7:26:43 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/24/2012 7:26:43 PM
Fluoranthene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Fluorene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Hexachloroethane	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Isophorone	ND	2.5		mg/Kg	1	10/24/2012 7:26:43 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/24/2012 7:26:43 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Naphthalene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-25 (0-0.5')
Collection Date: 10/16/2012 1:00:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	10/24/2012 7:26:43 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/24/2012 7:26:43 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	10/24/2012 7:26:43 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/24/2012 7:26:43 PM
Phenanthrene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Phenol	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Pyrene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Pyridine	ND	2.5		mg/Kg	1	10/24/2012 7:26:43 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	10/24/2012 7:26:43 PM
Surr: 2,4,6-Tribromophenol	79.2	21.3-145		%REC	1	10/24/2012 7:26:43 PM
Surr: 2-Fluorobiphenyl	91.4	20-131		%REC	1	10/24/2012 7:26:43 PM
Surr: 2-Fluorophenol	93.5	11.9-130		%REC	1	10/24/2012 7:26:43 PM
Surr: 4-Terphenyl-d14	103	25.1-149		%REC	1	10/24/2012 7:26:43 PM
Surr: Nitrobenzene-d5	98.3	25.6-137		%REC	1	10/24/2012 7:26:43 PM
Surr: Phenol-d5	87.3	20.3-132		%REC	1	10/24/2012 7:26:43 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Toluene	0.00202	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Ethylbenzene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Xylenes, Total	0.00162	0.00159		mg/Kg	1	10/18/2012 9:01:18 PM
Methyl tert-butyl ether (MTBE)	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,2,4-Trimethylbenzene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,3,5-Trimethylbenzene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,2-Dichloroethane (EDC)	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,2-Dibromoethane (EDB)	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Naphthalene	ND	0.00159		mg/Kg	1	10/18/2012 9:01:18 PM
1-Methylnaphthalene	ND	0.00318		mg/Kg	1	10/18/2012 9:01:18 PM
2-Methylnaphthalene	ND	0.00318		mg/Kg	1	10/18/2012 9:01:18 PM
Acetone	0.0398	0.00795		mg/Kg	1	10/18/2012 9:01:18 PM
Bromobenzene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Bromodichloromethane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Bromoform	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Bromomethane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
2-Butanone	ND	0.00795		mg/Kg	1	10/18/2012 9:01:18 PM
Carbon tetrachloride	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Chlorobenzene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Chloroethane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-25 (0-0.5')
Collection Date: 10/16/2012 1:00:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Chloromethane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
2-Chlorotoluene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Carbon disulfide	ND	0.00795		mg/Kg	1	10/18/2012 9:01:18 PM
4-Chlorotoluene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
cis-1,2-DCE	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
cis-1,3-Dichloropropene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,2-Dibromo-3-chloropropane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Dibromochloromethane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Dibromomethane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,2-Dichlorobenzene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,3-Dichlorobenzene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,4-Dichlorobenzene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Dichlorodifluoromethane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,1-Dichloroethane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,1-Dichloroethene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,2-Dichloropropane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,3-Dichloropropane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
2,2-Dichloropropane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,1-Dichloropropene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Hexachlorobutadiene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Isopropylbenzene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
4-Isopropyltoluene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Methylene chloride	ND	0.00238		mg/Kg	1	10/18/2012 9:01:18 PM
n-Butylbenzene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
2-Hexanone	ND	0.00795		mg/Kg	1	10/18/2012 9:01:18 PM
n-Propylbenzene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
sec-Butylbenzene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Styrene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
4-Methyl-2-pentanone	ND	0.00795		mg/Kg	1	10/18/2012 9:01:18 PM
tert-Butylbenzene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,1,1,2-Tetrachloroethane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,1,2,2-Tetrachloroethane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Tetrachloroethene (PCE)	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
trans-1,2-DCE	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
trans-1,3-Dichloropropene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,2,3-Trichlorobenzene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,2,4-Trichlorobenzene	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,1,1-Trichloroethane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
1,1,2-Trichloroethane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Trichloroethene (TCE)	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Trichlorofluoromethane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-003 **Matrix:** SOIL

Client Sample ID: SWMU 1-25 (0-0.5')
Collection Date: 10/16/2012 1:00:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Vinyl chloride	ND	0.000795		mg/Kg	1	10/18/2012 9:01:18 PM
Surr: 1,2-Dichloroethane-d4	96.2	70-130		%REC	1	10/18/2012 9:01:18 PM
Surr: 4-Bromofluorobenzene	91.8	70-130		%REC	1	10/18/2012 9:01:18 PM
Surr: Dibromofluoromethane	109	70-130		%REC	1	10/18/2012 9:01:18 PM
Surr: Toluene-d8	83.5	70-130		%REC	1	10/18/2012 9:01:18 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-25 (0.5-1')
Collection Date: 10/16/2012 1:15:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/21/2012 5:07:51 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/21/2012 5:07:51 PM
Surr: DNOP	106	77.6-140		%REC	1	10/21/2012 5:07:51 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/26/2012 4:27:52 AM
Surr: BFB	96.4	84-116		%REC	1	10/26/2012 4:27:52 AM
EPA METHOD 7471: MERCURY						Analyst: **JLF**
Mercury	0.034	0.033		mg/Kg	1	11/1/2012 4:04:25 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 7:36:32 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 7:36:32 PM
Barium	360	2.0		mg/Kg	20	10/25/2012 7:39:34 PM
Beryllium	0.45	0.30		mg/Kg	2	10/25/2012 7:36:32 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 7:36:32 PM
Chromium	12	0.60		mg/Kg	2	10/25/2012 7:36:32 PM
Cobalt	4.3	0.60		mg/Kg	2	10/25/2012 7:36:32 PM
Iron	10000	500		mg/Kg	500	10/25/2012 7:42:20 PM
Lead	4.1	0.50		mg/Kg	2	10/25/2012 7:36:32 PM
Manganese	270	2.0		mg/Kg	20	10/25/2012 7:39:34 PM
Nickel	9.8	1.0		mg/Kg	2	10/25/2012 7:36:32 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 7:36:32 PM
Silver	ND	0.50		mg/Kg	2	10/31/2012 2:32:45 PM
Vanadium	20	5.0		mg/Kg	2	10/25/2012 7:36:32 PM
Zinc	28	5.0		mg/Kg	2	10/25/2012 7:36:32 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Acenaphthylene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Aniline	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Anthracene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Azobenzene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Benz(a)anthracene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Benzo(a)pyrene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Benzo(b)fluoranthene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Benzo(g,h,i)perylene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Benzo(k)fluoranthene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Benzoic acid	ND	2.5		mg/Kg	1	10/24/2012 7:56:49 PM
Benzyl alcohol	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Bis(2-chloroethoxy)methane	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Bis(2-chloroethyl)ether	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Bis(2-chloroisopropyl)ether	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-25 (0.5-1')
Collection Date: 10/16/2012 1:15:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/24/2012 7:56:49 PM
4-Bromophenyl phenyl ether	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Butyl benzyl phthalate	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Carbazole	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/24/2012 7:56:49 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/24/2012 7:56:49 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	10/24/2012 7:56:49 PM
2-Chlorophenol	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
4-Chlorophenyl phenyl ether	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Chrysene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/24/2012 7:56:49 PM
Di-n-octyl phthalate	ND	2.0		mg/Kg	1	10/24/2012 7:56:49 PM
Dibenz(a,h)anthracene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Dibenzofuran	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
1,2-Dichlorobenzene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
1,3-Dichlorobenzene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
1,4-Dichlorobenzene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	10/24/2012 7:56:49 PM
Diethyl phthalate	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Dimethyl phthalate	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/24/2012 7:56:49 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/24/2012 7:56:49 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/24/2012 7:56:49 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/24/2012 7:56:49 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/24/2012 7:56:49 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/24/2012 7:56:49 PM
Fluoranthene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Fluorene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Hexachlorobenzene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Hexachlorobutadiene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Hexachlorocyclopentadiene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Hexachloroethane	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Indeno(1,2,3-cd)pyrene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Isophorone	ND	2.5		mg/Kg	1	10/24/2012 7:56:49 PM
1-Methylnaphthalene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
2-Methylnaphthalene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
2-Methylphenol	ND	2.5		mg/Kg	1	10/24/2012 7:56:49 PM
3+4-Methylphenol	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
N-Nitrosodi-n-propylamine	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
N-Nitrosodiphenylamine	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Naphthalene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
2-Nitroaniline	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-25 (0.5-1')
Collection Date: 10/16/2012 1:15:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	10/24/2012 7:56:49 PM
Nitrobenzene	ND	2.5		mg/Kg	1	10/24/2012 7:56:49 PM
2-Nitrophenol	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	10/24/2012 7:56:49 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/24/2012 7:56:49 PM
Phenanthrene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Phenol	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Pyrene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Pyridine	ND	2.5		mg/Kg	1	10/24/2012 7:56:49 PM
1,2,4-Trichlorobenzene	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
2,4,5-Trichlorophenol	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
2,4,6-Trichlorophenol	ND	0.99		mg/Kg	1	10/24/2012 7:56:49 PM
Surr: 2,4,6-Tribromophenol	64.9	21.3-145		%REC	1	10/24/2012 7:56:49 PM
Surr: 2-Fluorobiphenyl	87.6	20-131		%REC	1	10/24/2012 7:56:49 PM
Surr: 2-Fluorophenol	87.3	11.9-130		%REC	1	10/24/2012 7:56:49 PM
Surr: 4-Terphenyl-d14	111	25.1-149		%REC	1	10/24/2012 7:56:49 PM
Surr: Nitrobenzene-d5	95.7	25.6-137		%REC	1	10/24/2012 7:56:49 PM
Surr: Phenol-d5	82.8	20.3-132		%REC	1	10/24/2012 7:56:49 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00130	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Toluene	0.00428	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Ethylbenzene	0.00115	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Xylenes, Total	0.00404	0.00212		mg/Kg	1	10/18/2012 9:32:07 PM
Methyl tert-butyl ether (MTBE)	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,2,4-Trimethylbenzene	0.00110	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,3,5-Trimethylbenzene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,2-Dichloroethane (EDC)	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,2-Dibromoethane (EDB)	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Naphthalene	ND	0.00212		mg/Kg	1	10/18/2012 9:32:07 PM
1-Methylnaphthalene	ND	0.00425		mg/Kg	1	10/18/2012 9:32:07 PM
2-Methylnaphthalene	ND	0.00425		mg/Kg	1	10/18/2012 9:32:07 PM
Acetone	0.0739	0.0106		mg/Kg	1	10/18/2012 9:32:07 PM
Bromobenzene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Bromodichloromethane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Bromoform	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Bromomethane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
2-Butanone	ND	0.0106		mg/Kg	1	10/18/2012 9:32:07 PM
Carbon tetrachloride	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Chlorobenzene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Chloroethane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-004 **Matrix:** SOIL

Client Sample ID: SWMU 1-25 (0.5-1')
Collection Date: 10/16/2012 1:15:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Chloromethane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
2-Chlorotoluene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Carbon disulfide	ND	0.0106		mg/Kg	1	10/18/2012 9:32:07 PM
4-Chlorotoluene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
cis-1,2-DCE	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
cis-1,3-Dichloropropene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,2-Dibromo-3-chloropropane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Dibromochloromethane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Dibromomethane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,2-Dichlorobenzene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,3-Dichlorobenzene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,4-Dichlorobenzene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Dichlorodifluoromethane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,1-Dichloroethane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,1-Dichloroethene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,2-Dichloropropane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,3-Dichloropropane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
2,2-Dichloropropane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,1-Dichloropropene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Hexachlorobutadiene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Isopropylbenzene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
4-Isopropyltoluene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Methylene chloride	ND	0.00319		mg/Kg	1	10/18/2012 9:32:07 PM
n-Butylbenzene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
2-Hexanone	ND	0.0106		mg/Kg	1	10/18/2012 9:32:07 PM
n-Propylbenzene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
sec-Butylbenzene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Styrene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
4-Methyl-2-pentanone	ND	0.0106		mg/Kg	1	10/18/2012 9:32:07 PM
tert-Butylbenzene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,1,1,2-Tetrachloroethane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,1,2,2-Tetrachloroethane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Tetrachloroethene (PCE)	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
trans-1,2-DCE	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
trans-1,3-Dichloropropene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,2,3-Trichlorobenzene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,2,4-Trichlorobenzene	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,1,1-Trichloroethane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
1,1,2-Trichloroethane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Trichloroethene (TCE)	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Trichlorofluoromethane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-25 (0.5-1')
Project: SWMU NO.1
Collection Date: 10/16/2012 1:15:00 PM
Lab ID: 1210859-004 **Matrix:** SOIL **Received Date:** 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Vinyl chloride	ND	0.00106		mg/Kg	1	10/18/2012 9:32:07 PM
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%REC	1	10/18/2012 9:32:07 PM
Surr: 4-Bromofluorobenzene	94.0	70-130		%REC	1	10/18/2012 9:32:07 PM
Surr: Dibromofluoromethane	105	70-130		%REC	1	10/18/2012 9:32:07 PM
Surr: Toluene-d8	89.6	70-130		%REC	1	10/18/2012 9:32:07 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-26 (0-0.5')
Collection Date: 10/16/2012 1:35:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/21/2012 8:20:05 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/21/2012 8:20:05 AM
Surr: DNOP	104	77.6-140		%REC	1	10/21/2012 8:20:05 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/26/2012 3:05:35 PM
Surr: BFB	98.1	84-116		%REC	1	10/26/2012 3:05:35 PM
EPA METHOD 7471: MERCURY						Analyst: **JLF**
Mercury	0.051	0.033		mg/Kg	1	11/1/2012 4:06:12 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 7:48:02 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 7:48:02 PM
Barium	390	2.0		mg/Kg	20	10/25/2012 7:50:55 PM
Beryllium	0.62	0.30		mg/Kg	2	10/25/2012 7:48:02 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 7:48:02 PM
Chromium	7.9	0.60		mg/Kg	2	10/25/2012 7:48:02 PM
Cobalt	3.7	0.60		mg/Kg	2	10/25/2012 7:48:02 PM
Iron	11000	500		mg/Kg	500	10/25/2012 8:05:04 PM
Lead	2.7	0.50		mg/Kg	2	10/25/2012 7:48:02 PM
Manganese	670	2.0		mg/Kg	20	10/25/2012 7:50:55 PM
Nickel	6.1	1.0		mg/Kg	2	10/25/2012 7:48:02 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 7:48:02 PM
Silver	ND	0.50		mg/Kg	2	10/31/2012 2:35:55 PM
Vanadium	14	5.0		mg/Kg	2	10/25/2012 7:48:02 PM
Zinc	16	5.0		mg/Kg	2	10/25/2012 7:48:02 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Acenaphthylene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Aniline	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Anthracene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Azobenzene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Benzoic acid	ND	0.99		mg/Kg	1	10/24/2012 8:26:49 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-26 (0-0.5')
Collection Date: 10/16/2012 1:35:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.99		mg/Kg	1	10/24/2012 8:26:49 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Carbazole	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
4-Chloro-3-methylphenol	ND	0.99		mg/Kg	1	10/24/2012 8:26:49 PM
4-Chloroaniline	ND	0.99		mg/Kg	1	10/24/2012 8:26:49 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/24/2012 8:26:49 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Chrysene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Di-n-butyl phthalate	ND	0.99		mg/Kg	1	10/24/2012 8:26:49 PM
Di-n-octyl phthalate	ND	0.79		mg/Kg	1	10/24/2012 8:26:49 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Dibenzofuran	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/24/2012 8:26:49 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
2,4-Dichlorophenol	ND	0.79		mg/Kg	1	10/24/2012 8:26:49 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/24/2012 8:26:49 PM
4,6-Dinitro-2-methylphenol	ND	0.99		mg/Kg	1	10/24/2012 8:26:49 PM
2,4-Dinitrophenol	ND	0.79		mg/Kg	1	10/24/2012 8:26:49 PM
2,4-Dinitrotoluene	ND	0.99		mg/Kg	1	10/24/2012 8:26:49 PM
2,6-Dinitrotoluene	ND	0.99		mg/Kg	1	10/24/2012 8:26:49 PM
Fluoranthene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Fluorene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Hexachloroethane	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Isophorone	ND	0.99		mg/Kg	1	10/24/2012 8:26:49 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
2-Methylphenol	ND	0.99		mg/Kg	1	10/24/2012 8:26:49 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Naphthalene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-26 (0-0.5')
Collection Date: 10/16/2012 1:35:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
4-Nitroaniline	ND	0.79		mg/Kg	1	10/24/2012 8:26:49 PM
Nitrobenzene	ND	0.99		mg/Kg	1	10/24/2012 8:26:49 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/24/2012 8:26:49 PM
Pentachlorophenol	ND	0.79		mg/Kg	1	10/24/2012 8:26:49 PM
Phenanthrene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Phenol	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Pyrene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Pyridine	ND	0.99		mg/Kg	1	10/24/2012 8:26:49 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/24/2012 8:26:49 PM
Surr: 2,4,6-Tribromophenol	84.7	21.3-145		%REC	1	10/24/2012 8:26:49 PM
Surr: 2-Fluorobiphenyl	79.8	20-131		%REC	1	10/24/2012 8:26:49 PM
Surr: 2-Fluorophenol	85.5	11.9-130		%REC	1	10/24/2012 8:26:49 PM
Surr: 4-Terphenyl-d14	82.6	25.1-149		%REC	1	10/24/2012 8:26:49 PM
Surr: Nitrobenzene-d5	98.8	25.6-137		%REC	1	10/24/2012 8:26:49 PM
Surr: Phenol-d5	80.2	20.3-132		%REC	1	10/24/2012 8:26:49 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00185	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Toluene	0.00369	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Ethylbenzene	0.00121	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Xylenes, Total	0.00503	0.00147		mg/Kg	1	10/18/2012 10:02:52 PM
Methyl tert-butyl ether (MTBE)	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,2,4-Trimethylbenzene	0.00207	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,3,5-Trimethylbenzene	0.000828	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,2-Dichloroethane (EDC)	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,2-Dibromoethane (EDB)	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Naphthalene	ND	0.00147		mg/Kg	1	10/18/2012 10:02:52 PM
1-Methylnaphthalene	ND	0.00293		mg/Kg	1	10/18/2012 10:02:52 PM
2-Methylnaphthalene	ND	0.00293		mg/Kg	1	10/18/2012 10:02:52 PM
Acetone	0.0644	0.00733		mg/Kg	1	10/18/2012 10:02:52 PM
Bromobenzene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Bromodichloromethane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Bromoform	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Bromomethane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
2-Butanone	ND	0.00733		mg/Kg	1	10/18/2012 10:02:52 PM
Carbon tetrachloride	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Chlorobenzene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Chloroethane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-26 (0-0.5')
Collection Date: 10/16/2012 1:35:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Chloromethane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
2-Chlorotoluene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Carbon disulfide	ND	0.00733		mg/Kg	1	10/18/2012 10:02:52 PM
4-Chlorotoluene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
cis-1,2-DCE	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
cis-1,3-Dichloropropene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,2-Dibromo-3-chloropropane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Dibromochloromethane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Dibromomethane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,2-Dichlorobenzene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,3-Dichlorobenzene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,4-Dichlorobenzene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Dichlorodifluoromethane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,1-Dichloroethane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,1-Dichloroethene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,2-Dichloropropane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,3-Dichloropropane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
2,2-Dichloropropane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,1-Dichloropropene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Hexachlorobutadiene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Isopropylbenzene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
4-Isopropyltoluene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Methylene chloride	ND	0.00220		mg/Kg	1	10/18/2012 10:02:52 PM
n-Butylbenzene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
2-Hexanone	ND	0.00733		mg/Kg	1	10/18/2012 10:02:52 PM
n-Propylbenzene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
sec-Butylbenzene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Styrene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
4-Methyl-2-pentanone	ND	0.00733		mg/Kg	1	10/18/2012 10:02:52 PM
tert-Butylbenzene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,1,1,2-Tetrachloroethane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,1,2,2-Tetrachloroethane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Tetrachloroethene (PCE)	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
trans-1,2-DCE	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
trans-1,3-Dichloropropene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,2,3-Trichlorobenzene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,2,4-Trichlorobenzene	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,1,1-Trichloroethane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
1,1,2-Trichloroethane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Trichloroethene (TCE)	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Trichlorofluoromethane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-005 **Matrix:** SOIL

Client Sample ID: SWMU 1-26 (0-0.5')
Collection Date: 10/16/2012 1:35:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Vinyl chloride	ND	0.000733		mg/Kg	1	10/18/2012 10:02:52 PM
Surr: 1,2-Dichloroethane-d4	91.4	70-130		%REC	1	10/18/2012 10:02:52 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	10/18/2012 10:02:52 PM
Surr: Dibromofluoromethane	98.1	70-130		%REC	1	10/18/2012 10:02:52 PM
Surr: Toluene-d8	95.4	70-130		%REC	1	10/18/2012 10:02:52 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-29 (0-0.5')
Collection Date: 10/16/2012 2:40:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	76	9.6		mg/Kg	1	10/21/2012 9:10:18 AM
Motor Oil Range Organics (MRO)	110	48		mg/Kg	1	10/21/2012 9:10:18 AM
Surr: DNOP	112	77.6-140		%REC	1	10/21/2012 9:10:18 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/26/2012 3:34:21 PM
Surr: BFB	97.4	84-116		%REC	1	10/26/2012 3:34:21 PM
EPA METHOD 7471: MERCURY						Analyst: **JLF**
Mercury	0.22	0.033		mg/Kg	1	11/1/2012 4:07:57 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 8:10:53 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 8:10:53 PM
Barium	550	2.0		mg/Kg	20	10/25/2012 8:13:48 PM
Beryllium	0.69	0.30		mg/Kg	2	10/25/2012 8:10:53 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 8:10:53 PM
Chromium	17	0.60		mg/Kg	2	10/25/2012 8:10:53 PM
Cobalt	5.1	0.60		mg/Kg	2	10/25/2012 8:10:53 PM
Iron	15000	500		mg/Kg	500	10/25/2012 8:16:27 PM
Lead	7.0	0.50		mg/Kg	2	10/25/2012 8:10:53 PM
Manganese	620	2.0		mg/Kg	20	10/25/2012 8:13:48 PM
Nickel	9.3	1.0		mg/Kg	2	10/25/2012 8:10:53 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 8:10:53 PM
Silver	ND	0.50		mg/Kg	2	10/31/2012 2:38:49 PM
Vanadium	19	5.0		mg/Kg	2	10/25/2012 8:10:53 PM
Zinc	48	5.0		mg/Kg	2	10/25/2012 8:10:53 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Acenaphthylene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Aniline	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Anthracene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Azobenzene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Benz(a)anthracene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Benzo(a)pyrene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Benzo(b)fluoranthene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Benzo(g,h,i)perylene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Benzo(k)fluoranthene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Benzoic acid	ND	2.0		mg/Kg	1	10/24/2012 8:56:42 PM
Benzyl alcohol	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Bis(2-chloroethoxy)methane	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Bis(2-chloroethyl)ether	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Bis(2-chloroisopropyl)ether	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-29 (0-0.5')
Collection Date: 10/16/2012 2:40:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.0		mg/Kg	1	10/24/2012 8:56:42 PM
4-Bromophenyl phenyl ether	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Butyl benzyl phthalate	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Carbazole	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
4-Chloro-3-methylphenol	ND	2.0		mg/Kg	1	10/24/2012 8:56:42 PM
4-Chloroaniline	ND	2.0		mg/Kg	1	10/24/2012 8:56:42 PM
2-Chloronaphthalene	ND	1.0		mg/Kg	1	10/24/2012 8:56:42 PM
2-Chlorophenol	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
4-Chlorophenyl phenyl ether	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Chrysene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Di-n-butyl phthalate	ND	2.0		mg/Kg	1	10/24/2012 8:56:42 PM
Di-n-octyl phthalate	ND	1.6		mg/Kg	1	10/24/2012 8:56:42 PM
Dibenz(a,h)anthracene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Dibenzofuran	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
1,2-Dichlorobenzene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
1,3-Dichlorobenzene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
1,4-Dichlorobenzene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
3,3'-Dichlorobenzidine	ND	1.0		mg/Kg	1	10/24/2012 8:56:42 PM
Diethyl phthalate	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Dimethyl phthalate	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
2,4-Dichlorophenol	ND	1.6		mg/Kg	1	10/24/2012 8:56:42 PM
2,4-Dimethylphenol	ND	1.2		mg/Kg	1	10/24/2012 8:56:42 PM
4,6-Dinitro-2-methylphenol	ND	2.0		mg/Kg	1	10/24/2012 8:56:42 PM
2,4-Dinitrophenol	ND	1.6		mg/Kg	1	10/24/2012 8:56:42 PM
2,4-Dinitrotoluene	ND	2.0		mg/Kg	1	10/24/2012 8:56:42 PM
2,6-Dinitrotoluene	ND	2.0		mg/Kg	1	10/24/2012 8:56:42 PM
Fluoranthene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Fluorene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Hexachlorobenzene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Hexachlorobutadiene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Hexachlorocyclopentadiene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Hexachloroethane	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Indeno(1,2,3-cd)pyrene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Isophorone	ND	2.0		mg/Kg	1	10/24/2012 8:56:42 PM
1-Methylnaphthalene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
2-Methylnaphthalene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
2-Methylphenol	ND	2.0		mg/Kg	1	10/24/2012 8:56:42 PM
3+4-Methylphenol	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
N-Nitrosodi-n-propylamine	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
N-Nitrosodiphenylamine	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Naphthalene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
2-Nitroaniline	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.1
Lab ID: 1210859-006 **Matrix:** SOIL

Client Sample ID: SWMU 1-29 (0-0.5')
Collection Date: 10/16/2012 2:40:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
4-Nitroaniline	ND	1.6		mg/Kg	1	10/24/2012 8:56:42 PM
Nitrobenzene	ND	2.0		mg/Kg	1	10/24/2012 8:56:42 PM
2-Nitrophenol	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
4-Nitrophenol	ND	1.0		mg/Kg	1	10/24/2012 8:56:42 PM
Pentachlorophenol	ND	1.6		mg/Kg	1	10/24/2012 8:56:42 PM
Phenanthrene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Phenol	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Pyrene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Pyridine	ND	2.0		mg/Kg	1	10/24/2012 8:56:42 PM
1,2,4-Trichlorobenzene	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
2,4,5-Trichlorophenol	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
2,4,6-Trichlorophenol	ND	0.80		mg/Kg	1	10/24/2012 8:56:42 PM
Surr: 2,4,6-Tribromophenol	84.6	21.3-145		%REC	1	10/24/2012 8:56:42 PM
Surr: 2-Fluorobiphenyl	79.2	20-131		%REC	1	10/24/2012 8:56:42 PM
Surr: 2-Fluorophenol	82.8	11.9-130		%REC	1	10/24/2012 8:56:42 PM
Surr: 4-Terphenyl-d14	86.9	25.1-149		%REC	1	10/24/2012 8:56:42 PM
Surr: Nitrobenzene-d5	89.4	25.6-137		%REC	1	10/24/2012 8:56:42 PM
Surr: Phenol-d5	80.3	20.3-132		%REC	1	10/24/2012 8:56:42 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00236	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Toluene	0.00327	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Ethylbenzene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Xylenes, Total	0.00307	0.00164		mg/Kg	1	10/18/2012 10:33:37 PM
Methyl tert-butyl ether (MTBE)	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,2,4-Trimethylbenzene	0.00116	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,3,5-Trimethylbenzene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,2-Dichloroethane (EDC)	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,2-Dibromoethane (EDB)	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Naphthalene	ND	0.00164		mg/Kg	1	10/18/2012 10:33:37 PM
1-Methylnaphthalene	ND	0.00327		mg/Kg	1	10/18/2012 10:33:37 PM
2-Methylnaphthalene	ND	0.00327		mg/Kg	1	10/18/2012 10:33:37 PM
Acetone	0.0641	0.00818		mg/Kg	1	10/18/2012 10:33:37 PM
Bromobenzene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Bromodichloromethane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Bromoform	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Bromomethane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
2-Butanone	ND	0.00818		mg/Kg	1	10/18/2012 10:33:37 PM
Carbon tetrachloride	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Chlorobenzene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Chloroethane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-29 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/16/2012 2:40:00 PM
Lab ID: 1210859-006 **Matrix:** SOIL **Received Date:** 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Chloromethane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
2-Chlorotoluene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Carbon disulfide	ND	0.00818		mg/Kg	1	10/18/2012 10:33:37 PM
4-Chlorotoluene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
cis-1,2-DCE	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
cis-1,3-Dichloropropene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,2-Dibromo-3-chloropropane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Dibromochloromethane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Dibromomethane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,2-Dichlorobenzene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,3-Dichlorobenzene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,4-Dichlorobenzene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Dichlorodifluoromethane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,1-Dichloroethane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,1-Dichloroethene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,2-Dichloropropane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,3-Dichloropropane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
2,2-Dichloropropane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,1-Dichloropropene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Hexachlorobutadiene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Isopropylbenzene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
4-Isopropyltoluene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Methylene chloride	ND	0.00245		mg/Kg	1	10/18/2012 10:33:37 PM
n-Butylbenzene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
2-Hexanone	ND	0.00818		mg/Kg	1	10/18/2012 10:33:37 PM
n-Propylbenzene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
sec-Butylbenzene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Styrene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
4-Methyl-2-pentanone	ND	0.00818		mg/Kg	1	10/18/2012 10:33:37 PM
tert-Butylbenzene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,1,1,2-Tetrachloroethane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,1,2,2-Tetrachloroethane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Tetrachloroethene (PCE)	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
trans-1,2-DCE	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
trans-1,3-Dichloropropene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,2,3-Trichlorobenzene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,2,4-Trichlorobenzene	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,1,1-Trichloroethane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
1,1,2-Trichloroethane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Trichloroethene (TCE)	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Trichlorofluoromethane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 1-29 (0-0.5')
Project: SWMU NO.1
Collection Date: 10/16/2012 2:40:00 PM
Lab ID: 1210859-006 **Matrix:** SOIL **Received Date:** 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Vinyl chloride	ND	0.000818		mg/Kg	1	10/18/2012 10:33:37 PM
Surr: 1,2-Dichloroethane-d4	87.2	70-130		%REC	1	10/18/2012 10:33:37 PM
Surr: 4-Bromofluorobenzene	132	70-130	S	%REC	1	10/18/2012 10:33:37 PM
Surr: Dibromofluoromethane	99.7	70-130		%REC	1	10/18/2012 10:33:37 PM
Surr: Toluene-d8	98.6	70-130		%REC	1	10/18/2012 10:33:37 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 121019046
Project Name: 1210859

Analytical Results Report

Sample Number 121019046-001 **Sampling Date** 10/16/2012 **Date/Time Received** 10/19/2012 1:14 PM
Client Sample ID 1210859-001D / SWMU 1-23 (0-0.5) **Sampling Time** 12:10 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.253	10/30/2012	CRW	EPA 335.4	
%moisture	2.9	Percent		10/30/2012	TGT	%moisture	

Sample Number 121019046-002 **Sampling Date** 10/16/2012 **Date/Time Received** 10/19/2012 1:14 PM
Client Sample ID 1210859-002D / SWMU 1-39 (0-0.5) **Sampling Time** 12:35 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.259	10/30/2012	CRW	EPA 335.4	
%moisture	4.1	Percent		10/30/2012	TGT	%moisture	

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	121019046
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1210859
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	121019046-003	**Sampling Date**	10/16/2012	**Date/Time Received**	10/19/2012 1:14 PM
Client Sample ID	1210859-003D / SWMU 1-25 (0-0.5)	**Sampling Time**	1:00 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.259	10/30/2012	CRW	EPA 335.4	
%moisture	3.9	Percent		10/30/2012	TGT	%moisture	

Sample Number	121019046-004	**Sampling Date**	10/16/2012	**Date/Time Received**	10/19/2012 1:14 PM
Client Sample ID	1210859-004D / SWMU 1-25 (0.5-1)	**Sampling Time**	1:15 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.268	10/30/2012	CRW	EPA 335.4	
%moisture	7.3	Percent		10/30/2012	TGT	%moisture	

Anatek Labs, Inc.

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 121019046
Project Name: 1210859

Analytical Results Report

Sample Number	121019046-005	**Sampling Date**	10/16/2012	**Date/Time Received**	10/19/2012 1:14 PM
Client Sample ID	1210859-005D / SWMU 1-26 (0-0.5)	**Sampling Time**	1:35 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.246	10/30/2012	CRW	EPA 335.4	
%moisture	3.8	Percent		10/30/2012	TGT	%moisture	

Sample Number	121019046-006	**Sampling Date**	10/16/2012	**Date/Time Received**	10/19/2012 1:14 PM
Client Sample ID	1210859-006D / SWMU 1-29 (0-0.5)	**Sampling Time**	2:40 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	6.05	mg/Kg	0.256	10/30/2012	CRW	EPA 335.4	
%moisture	2.8	Percent		10/30/2012	TGT	%moisture	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210859**

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4404**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4404**	RunNo: **6356**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **182984** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.6		10.00		95.6	77.6	140			

Sample ID **LCS-4404**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4404**	RunNo: **6356**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **182985** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	34	10	50.00	0	67.4	52.6	130			
Surr: DNOP	4.5		5.000		90.3	77.6	140			

Sample ID **1210819-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **4404**	RunNo: **6356**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **183001** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
l Range Organics (DRO)	67	12	58.99	27.06	67.2	57.2	146			
urr: DNOP	4.7		5.899		79.7	77.6	140			

Sample ID **1210819-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **4404**	RunNo: **6356**
Prep Date: **10/18/2012**	Analysis Date: **10/19/2012**	SeqNo: **183002** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	69	12	61.48	27.06	68.9	57.2	146	4.05	24.5	
Surr: DNOP	4.9		6.148		79.2	77.6	140	0	0	

lifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210859**

13-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID **MB-4474**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **PBS**	Batch ID: **4474**	RunNo: **6487**							
Prep Date: **10/23/2012**	Analysis Date: **10/25/2012**	SeqNo: **187625**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	950		1000		95.0	84	116			

Sample ID **LCS-4474**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **4474**	RunNo: **6487**							
Prep Date: **10/23/2012**	Analysis Date: **10/25/2012**	SeqNo: **187626**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	102	74	117			
Surr: BFB	1000		1000		100	84	116			

Sample ID **1210A08-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **BatchQC**	Batch ID: **4474**	RunNo: **6487**							
Prep Date: **10/23/2012**	Analysis Date: **10/25/2012**	SeqNo: **187638**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	4.9	24.34	11.22	90.8	70	130			
Surr: BFB	1100		973.7		117	84	116			S

Sample ID **1210A08-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **BatchQC**	Batch ID: **4474**	RunNo: **6487**							
Prep Date: **10/23/2012**	Analysis Date: **10/25/2012**	SeqNo: **187639**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	33	4.9	24.39	11.22	89.9	70	130	0.479	22.1	
Surr: BFB	1100		975.6		115	84	116	0	0	

Sample ID **MB-4447**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **PBS**	Batch ID: **4447**	RunNo: **6512**							
Prep Date: **10/22/2012**	Analysis Date: **10/26/2012**	SeqNo: **187995**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	990		1000		99.3	84	116			

Sample ID **LCS-4447**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **4447**	RunNo: **6512**							
Prep Date: **10/22/2012**	Analysis Date: **10/26/2012**	SeqNo: **187996**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	106	74	117			
Surr: BFB	1000		1000		103	84	116			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210859**

13-Nov-12

ent: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4393**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4393**	RunNo: **6360**
Prep Date: **10/18/2012**	Analysis Date: **10/18/2012**	SeqNo: **182928** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
Naphthalene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
[illegible]omethane	ND	0.00100								
[illegible]anone	ND	0.0100								
Carbon tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								

lifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210859**

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4393**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4393**	RunNo: **6360**
Prep Date: **10/18/2012**	Analysis Date: **10/18/2012**	SeqNo: **182928** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	46.1		50.00		92.1	70	130			
Surr: 4-Bromofluorobenzene	44.8		50.00		89.6	70	130			
Surr: Dibromofluoromethane	53.0		50.00		106	70	130			
Surr: Toluene-d8	42.4		50.00		84.8	70	130			

Sample ID **lcs-4393**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4393**	RunNo: **6360**
Prep Date: **10/18/2012**	Analysis Date: **10/18/2012**	SeqNo: **182930** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	8.87	1.00	10.00	0	88.7	60	140			
Toluene	8.50	1.00	10.00	0	85.0	60	140			
Chlorobenzene	9.38	1.00	10.00	0	93.8	60	140			
1,1-Dichloroethene	11.0	1.00	10.00	0	110	60	140			
Trichloroethene (TCE)	7.70	1.00	10.00	0	77.0	60	140			
Surr: 1,2-Dichloroethane-d4	44.9		50.00		89.8	70	130			
Surr: 4-Bromofluorobenzene	40.9		50.00		81.7	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210859**

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	**lcs-4393**	SampType: **LCS**		TestCode: **Method 8260B/5035LOW: VOLATILES**					
Client ID:	**LCSS**	Batch ID: **4393**		RunNo: **6360**					
Prep Date:	**10/18/2012**	Analysis Date: **10/18/2012**		SeqNo: **182930**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	50.4		50.00		101	70	130			
Surr: Toluene-d8	41.1		50.00		82.2	70	130			

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210859**

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **lcs-4422**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185414** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	74.7	49.7	98.1			
4-Chloro-3-methylphenol	2.6	0.50	3.330	0	76.9	43.8	89.1			
2-Chlorophenol	2.5	0.20	3.330	0	75.3	41.1	96.9			
1,4-Dichlorobenzene	1.3	0.20	1.670	0	78.0	41	97.4			
2,4-Dinitrotoluene	1.3	0.50	1.670	0	79.3	44.4	104			
N-Nitrosodi-n-propylamine	1.4	0.20	1.670	0	83.1	39.1	86.9			
4-Nitrophenol	2.4	0.25	3.330	0	73.5	44.2	107			
Pentachlorophenol	2.1	0.40	3.330	0	61.6	36.2	80			
Phenol	2.4	0.20	3.330	0	72.5	42.7	92.7			
Pyrene	1.3	0.20	1.670	0	77.3	34.7	98.8			
1,2,4-Trichlorobenzene	1.5	0.20	1.670	0	91.6	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.4		3.330		103	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.670		95.5	20	131			
Surr: 2-Fluorophenol	2.8		3.330		83.7	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		79.6	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.670		99.9	25.6	137			
Surr: Phenol-d5	3.0		3.330		89.0	20.3	132			

Sample ID **mb-4422**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210859**

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4422**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
D[illegible]thyl phthalate	ND	0.20								
[illegible]chlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210859**

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **mb-4422** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **PBS** Batch ID: **4422** RunNo: **6445**

Prep Date: **10/19/2012** Analysis Date: **10/23/2012** SeqNo: **185416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.9		3.330		117	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.670		98.4	20	131			
Surr: 2-Fluorophenol	3.1		3.330		91.6	11.9	130			
Surr: 4-Terphenyl-d14	1.5		1.670		91.7	25.1	149			
Surr: Nitrobenzene-d5	1.8		1.670		109	25.6	137			
Surr: Phenol-d5	3.2		3.330		96.3	20.3	132			

Sample ID **1210858-004Cms** SampType: **MS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **BatchQC** Batch ID: **4422** RunNo: **6445**

Prep Date: **10/19/2012** Analysis Date: **10/23/2012** SeqNo: **185433** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.659	0	69.3	25.6	142			
4-Chloro-3-methylphenol	2.2	0.50	3.309	0	67.6	63.7	100			
2-Chlorophenol	2.0	0.20	3.309	0	61.7	22.2	126			
1,4-Dichlorobenzene	1.1	0.20	1.659	0	63.6	12.4	115			
2,4-Dinitrotoluene	1.2	0.50	1.659	0	74.6	14.9	142			
N-Nitrosodi-n-propylamine	1.1	0.20	1.659	0	65.9	13.9	136			
4-Nitrophenol	2.2	0.25	3.309	0.09121	63.6	36.7	130			
Pentachlorophenol	1.9	0.40	3.309	0	56.5	15.8	113			
Phenol	2.1	0.20	3.309	0	63.9	25.1	124			
Pyrene	1.1	0.20	1.659	0	68.6	35.8	124			
1,2,4-Trichlorobenzene	1.3	0.20	1.659	0	78.0	30	113			
Surr: 2,4,6-Tribromophenol	3.0		3.309		90.3	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.659		90.0	20	131			
Surr: 2-Fluorophenol	2.5		3.309		74.2	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.659		80.0	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.659		101	25.6	137			
Surr: Phenol-d5	2.8		3.309		84.0	20.3	132			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210859**

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210858-004Cmsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **BatchQC**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185434** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.681	0	71.3	25.6	142	4.05	22	
4-Chloro-3-methylphenol	2.3	0.50	3.351	0	69.5	63.7	100	4.10	27.3	
2-Chlorophenol	2.3	0.20	3.351	0	68.2	22.2	126	11.4	26.3	
1,4-Dichlorobenzene	1.1	0.20	1.681	0	63.4	12.4	115	1.02	27.4	
2,4-Dinitrotoluene	1.3	0.50	1.681	0	77.0	14.9	142	4.43	27.4	
N-Nitrosodi-n-propylamine	1.3	0.20	1.681	0	75.9	13.9	136	15.3	22.6	
4-Nitrophenol	2.3	0.25	3.351	0.09121	64.9	36.7	130	3.21	20	
Pentachlorophenol	2.0	0.40	3.351	0	59.9	15.8	113	7.18	27.1	
Phenol	2.2	0.20	3.351	0	66.5	25.1	124	5.18	32.2	
Pyrene	1.2	0.20	1.681	0	70.8	35.8	124	4.36	29.5	
1,2,4-Trichlorobenzene	1.4	0.20	1.681	0	80.5	30	113	4.34	27.8	
Surr: 2,4,6-Tribromophenol	3.1		3.351		93.6	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.5		1.681		91.0	20	131	0	0	
Surr: 2-Fluorophenol	2.5		3.351		75.3	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.4		1.681		81.4	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.6		1.681		96.9	25.6	137	0	0	
Surr: Phenol-d5	2.9		3.351		85.9	20.3	132	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210859**

13-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.1

Sample ID	MB-4426	SampType:	MBLK		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	4426		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185363	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-4426	SampType:	LCS		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	4426		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185364	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	101	80	120			

Sample ID	1210859-002CMS	SampType:	MS		TestCode:	EPA Method 7471: Mercury				
Client ID:	SWMU 1-39 (0-0.5')	Batch ID:	4426		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185391	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1654	0.01134	102	75	125			

Sample ID	1210859-002CMSD	SampType:	MSD		TestCode:	EPA Method 7471: Mercury				
Client ID:	SWMU 1-39 (0-0.5')	Batch ID:	4426		RunNo:	6443				
Prep Date:	10/19/2012	Analysis Date:	10/23/2012		SeqNo:	185392	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1685	0.01134	99.0	75	125	1.06	20	

Sample ID	MB-4629	SampType:	MBLK		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	4629		RunNo:	6634				
Prep Date:	11/1/2012	Analysis Date:	11/1/2012		SeqNo:	191517	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-4629	SampType:	LCS		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	4629		RunNo:	6634				
Prep Date:	11/1/2012	Analysis Date:	11/1/2012		SeqNo:	191518	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	101	80	120			

Sample ID	1210859-003CMS	SampType:	MS		TestCode:	EPA Method 7471: Mercury				
Client ID:	SWMU 1-25 (0-0.5')	Batch ID:	4629		RunNo:	6634				
Prep Date:	11/1/2012	Analysis Date:	11/1/2012		SeqNo:	191520	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.19	0.033	0.1609	0.02890	103	75	125			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210859**

13-Nov-12

ent: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210859-003CMSD** SampType: **MSD** TestCode: **EPA Method 7471: Mercury**

Client ID: **SWMU 1-25 (0-0.5')** Batch ID: **4629** RunNo: **6634**

Prep Date: **11/1/2012** Analysis Date: **11/1/2012** SeqNo: **191521** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.22	0.033	0.1651	0.02890	113	75	125	10.5	20	

ifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210859**

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **MB-4441** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **PBS** Batch ID: **4441** RunNo: **6493**

Prep Date: **10/22/2012** Analysis Date: **10/25/2012** SeqNo: **186822** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Iron	ND	1.0								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID **LCS-4441** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **LCSS** Batch ID: **4441** RunNo: **6493**

Prep Date: **10/22/2012** Analysis Date: **10/25/2012** SeqNo: **186823** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	23	2.5	25.00	0	92.2	80	120			
Arsenic	23	2.5	25.00	0	93.7	80	120			
Barium	23	0.10	25.00	0	92.2	80	120			
Beryllium	24	0.15	25.00	0	95.1	80	120			
Cadmium	23	0.10	25.00	0	92.8	80	120			
Chromium	23	0.30	25.00	0	91.8	80	120			
Cobalt	22	0.30	25.00	0	88.9	80	120			
Iron	23	1.0	25.00	0	93.7	80	120			
Lead	23	0.25	25.00	0	91.3	80	120			
Manganese	23	0.10	25.00	0.04450	90.3	80	120			
Nickel	22	0.50	25.00	0	87.6	80	120			
Selenium	22	2.5	25.00	0	87.2	80	120			
Vanadium	24	2.5	25.00	0	95.4	80	120			
Zinc	23	2.5	25.00	0	90.7	80	120			

Sample ID **1210656-001CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **BatchQC** Batch ID: **4441** RunNo: **6493**

Prep Date: **10/22/2012** Analysis Date: **10/25/2012** SeqNo: **186932** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	5.2	5.0	24.67	0	20.9	75	125			S
Arsenic	23	5.0	24.67	2.167	85.1	75	125			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210859**

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID **1210656-001CMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC**	Batch ID: **4441**	RunNo: **6493**
Prep Date: **10/22/2012**	Analysis Date: **10/25/2012**	SeqNo: **186932** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	21	0.30	24.67	0.6108	83.1	75	125			
Cadmium	19	0.20	24.67	0	78.2	75	125			
Chromium	31	0.60	24.67	9.563	87.0	75	125			
Cobalt	21	0.60	24.67	3.401	71.6	75	125			S
Lead	22	0.50	24.67	4.192	72.5	75	125			S
Nickel	24	1.0	24.67	5.943	73.5	75	125			S
Selenium	11	5.0	24.67	0	43.9	75	125			S
Vanadium	41	5.0	24.67	17.94	92.0	75	125			

Sample ID **1210656-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC**	Batch ID: **4441**	RunNo: **6493**
Prep Date: **10/22/2012**	Analysis Date: **10/25/2012**	SeqNo: **186933** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	5.0	24.23	0	20.3	75	125	200	20	S
Arsenic	23	5.0	24.23	2.167	87.5	75	125	0.929	20	
Beryllium	21	0.30	24.23	0.6108	85.4	75	125	0.909	20	
Cadmium	20	0.20	24.23	0	82.3	75	125	3.30	20	
Chromium	30	0.60	24.23	9.563	83.1	75	125	4.37	20	
Cobalt	21	0.60	24.23	3.401	72.9	75	125	0.0820	20	S
Lead	21	0.50	24.23	4.192	70.5	75	125	3.76	20	S
Nickel	24	1.0	24.23	5.943	75.3	75	125	0.450	20	
Selenium	13	5.0	24.23	0	54.1	75	125	19.1	20	S
Vanadium	39	5.0	24.23	17.94	88.1	75	125	3.41	20	

Sample ID **MB-4441**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **4441**	RunNo: **6546**
Prep Date: **10/22/2012**	Analysis Date: **10/29/2012**	SeqNo: **188994** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.25								

Sample ID **LCS-4441**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **4441**	RunNo: **6546**
Prep Date: **10/22/2012**	Analysis Date: **10/29/2012**	SeqNo: **188995** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	5.3	0.25	5.000	0	106	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210859**

13-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.1

Sample ID	**1210656-001CMS**	SampType:	**MS**		TestCode:	**EPA Method 6010B: Soil Metals**				
Client ID:	**BatchQC**	Batch ID:	**4441**		RunNo:	**6598**				
Prep Date:	**10/22/2012**	Analysis Date:	**10/31/2012**		SeqNo:	**190745**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	4.2	0.50	4.935	0	86.1	75	125			

Sample ID	**1210656-001CMSD**	SampType:	**MSD**		TestCode:	**EPA Method 6010B: Soil Metals**				
Client ID:	**BatchQC**	Batch ID:	**4441**		RunNo:	**6598**				
Prep Date:	**10/22/2012**	Analysis Date:	**10/31/2012**		SeqNo:	**190746**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	4.2	0.50	4.847	0	87.1	75	125	0.553	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1210859

Received by/date: LM 10/18/12

Logged By: Michelle Garcia 10/18/2012 8:00:00 AM Michelle Garcia

Completed By: Michelle Garcia 10/18/2012 9:07:38 AM Michelle Garcia

Reviewed By: 10/18/12

Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? FedEx

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: ☒ Yes ☐ No
Sample Temperature: 4.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1710850	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/10/12	1210	SOIL	SWMU 1-23(0-0.5')	2 VIALS	5OBI	-001										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1235		SWMU 1-39(0-0.5')	2 VIALS	5OBI	-002										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1300		SWMU 1-25(0-0.5')	2 VIALS	5OBI	-003										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1315		SWMU 1-25(0.5-1')	2 VIALS	5OBI	-004										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10-17-12	0725			10/18/12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

II of II

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 1
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice:
Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/16/12	1335		SWMU 1-26(0-0.5')	2VIALS	8081	-005										X						
	↓		↓	2VIALS	MEOH											X						
				3JARS	—											X	X	X	X			
	1440		SWMU 1-29(0-0.5')	2VIALS	8081	-006										X						
	↓		↓	2VIALS	MEOH											X						
				3JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/17/12	0725			10/18/12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 03, 2012

Ed Riege

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: SWMU NO.14 OrderNo.: 1207748

Dear Ed Riege:

Hall Environmental Analysis Laboratory received 3 sample(s) on 7/18/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1207748**
Date Reported: **8/3/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207748-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-1 (0-0.5)
Collection Date: 7/16/2012 4:15:00 PM
Received Date: 7/18/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	33	9.9		mg/Kg	1	7/20/2012 9:15:31 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/20/2012 9:15:31 AM
Surr: DNOP	121	77.6-140		%REC	1	7/20/2012 9:15:31 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/20/2012 3:30:59 AM
Surr: BFB	102	69.7-121		%REC	1	7/20/2012 3:30:59 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.038	0.033		mg/Kg	1	7/20/2012 2:58:09 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	7/26/2012 8:30:20 PM
Arsenic	ND	12		mg/Kg	5	7/25/2012 5:36:01 PM
Barium	790	2.0		mg/Kg	20	7/25/2012 5:52:08 PM
Beryllium	ND	0.75		mg/Kg	5	7/26/2012 8:30:20 PM
Cadmium	ND	0.50		mg/Kg	5	7/25/2012 5:36:01 PM
Chromium	6.8	1.5		mg/Kg	5	7/25/2012 5:36:01 PM
Cobalt	5.4	1.5		mg/Kg	5	7/26/2012 8:30:20 PM
Iron	9000	500		mg/Kg	500	7/31/2012 6:15:57 PM
Lead	3.6	1.2		mg/Kg	5	7/25/2012 5:36:01 PM
Manganese	570	2.0		mg/Kg	20	7/30/2012 7:33:13 PM
Nickel	6.1	2.5		mg/Kg	5	7/26/2012 8:30:20 PM
Selenium	ND	12		mg/Kg	5	7/30/2012 7:30:35 PM
Silver	ND	1.2		mg/Kg	5	7/25/2012 5:36:01 PM
Vanadium	17	12		mg/Kg	5	7/26/2012 8:30:20 PM
Zinc	21	12		mg/Kg	5	7/26/2012 8:30:20 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Aniline	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Anthracene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Azobenzene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/26/2012 6:35:04 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207748-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-1 (0-0.5)
Collection Date: 7/16/2012 4:15:00 PM
Received Date: 7/18/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/26/2012 6:35:04 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Carbazole	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/26/2012 6:35:04 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/26/2012 6:35:04 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/26/2012 6:35:04 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Chrysene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/26/2012 6:35:04 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/26/2012 6:35:04 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/26/2012 6:35:04 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/26/2012 6:35:04 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/26/2012 6:35:04 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/26/2012 6:35:04 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/26/2012 6:35:04 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/26/2012 6:35:04 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/26/2012 6:35:04 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Fluorene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Isophorone	ND	2.5		mg/Kg	1	7/26/2012 6:35:04 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/26/2012 6:35:04 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Naphthalene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207748-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-1 (0-0.5)
Collection Date: 7/16/2012 4:15:00 PM
Received Date: 7/18/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/26/2012 6:35:04 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/26/2012 6:35:04 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/26/2012 6:35:04 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/26/2012 6:35:04 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Phenol	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Pyrene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Pyridine	ND	2.5		mg/Kg	1	7/26/2012 6:35:04 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/26/2012 6:35:04 PM
Surr: 2,4,6-Tribromophenol	68.1	20.1-121		%REC	1	7/26/2012 6:35:04 PM
Surr: 2-Fluorobiphenyl	60.0	19-133		%REC	1	7/26/2012 6:35:04 PM
Surr: 2-Fluorophenol	53.8	20.2-108		%REC	1	7/26/2012 6:35:04 PM
Surr: 4-Terphenyl-d14	57.8	18.9-115		%REC	1	7/26/2012 6:35:04 PM
Surr: Nitrobenzene-d5	59.7	20.8-123		%REC	1	7/26/2012 6:35:04 PM
Surr: Phenol-d5	53.0	19.8-115		%REC	1	7/26/2012 6:35:04 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Toluene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Ethylbenzene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Xylenes, Total	ND	1.67		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Methyl tert-butyl ether (MTBE)	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,2,4-Trimethylbenzene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,3,5-Trimethylbenzene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,2-Dichloroethane (EDC)	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,2-Dibromoethane (EDB)	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Naphthalene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1-Methylnaphthalene	ND	3.34		µg/Kg-dry	1	7/18/2012 3:33:05 PM
2-Methylnaphthalene	ND	3.34		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Acetone	ND	8.35		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Bromobenzene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Bromodichloromethane	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Bromoform	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
2-Butanone	ND	1.67		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Carbon tetrachloride	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Chlorobenzene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Chloroethane	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Chloroform	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207748-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-1 (0-0.5)
Collection Date: 7/16/2012 4:15:00 PM
Received Date: 7/18/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
2-Chlorotoluene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Carbon disulfide	ND	1.67		µg/Kg-dry	1	7/18/2012 3:33:05 PM
4-Chlorotoluene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
cis-1,2-DCE	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
cis-1,3-Dichloropropene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,2-Dibromo-3-chloropropane	ND	1.67		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Dibromochloromethane	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Dibromomethane	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,2-Dichlorobenzene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,3-Dichlorobenzene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,4-Dichlorobenzene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Dichlorodifluoromethane	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,1-Dichloroethane	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,1-Dichloroethene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,2-Dichloropropane	ND	1.67		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,3-Dichloropropane	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
2,2-Dichloropropane	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,1-Dichloropropene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Hexachlorobutadiene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Isopropylbenzene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
4-Isopropyltoluene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Methylene chloride	ND	8.35		µg/Kg-dry	1	7/18/2012 3:33:05 PM
n-Butylbenzene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
2-Hexanone	ND	1.67		µg/Kg-dry	1	7/18/2012 3:33:05 PM
n-Propylbenzene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
sec-Butylbenzene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Styrene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
4-Methyl-2-pentanone	ND	1.67		µg/Kg-dry	1	7/18/2012 3:33:05 PM
tert-Butylbenzene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,1,1,2-Tetrachloroethane	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,1,2,2-Tetrachloroethane	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Tetrachloroethene (PCE)	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
trans-1,2-DCE	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
trans-1,3-Dichloropropene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,2,3-Trichlorobenzene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,2,4-Trichlorobenzene	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,1,1-Trichloroethane	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,1,2-Trichloroethane	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Trichloroethene (TCE)	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Trichlorofluoromethane	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
1,2,3-Trichloropropane	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207748-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-1 (0-0.5)
Collection Date: 7/16/2012 4:15:00 PM
Received Date: 7/18/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.835		µg/Kg-dry	1	7/18/2012 3:33:05 PM
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	7/18/2012 3:33:05 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	7/18/2012 3:33:05 PM
Surr: Dibromofluoromethane	103	70-130		%REC	1	7/18/2012 3:33:05 PM
Surr: Toluene-d8	102	70-130		%REC	1	7/18/2012 3:33:05 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207748-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-1 (1.5-2)
Collection Date: 7/16/2012 4:20:00 PM
Received Date: 7/18/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	30	10		mg/Kg	1	7/20/2012 10:42:33 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/20/2012 10:42:33 AM
Surr: DNOP	121	77.6-140		%REC	1	7/20/2012 10:42:33 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/20/2012 3:59:43 AM
Surr: BFB	102	69.7-121		%REC	1	7/20/2012 3:59:43 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	7/20/2012 2:59:54 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	7/26/2012 8:33:08 PM
Arsenic	ND	12		mg/Kg	5	7/25/2012 5:42:55 PM
Barium	550	2.0		mg/Kg	20	7/25/2012 5:54:25 PM
Beryllium	0.89	0.75		mg/Kg	5	7/26/2012 8:33:08 PM
Cadmium	ND	0.50		mg/Kg	5	7/25/2012 5:42:55 PM
Chromium	11	1.5		mg/Kg	5	7/25/2012 5:42:55 PM
Cobalt	5.1	1.5		mg/Kg	5	7/26/2012 8:33:08 PM
Iron	17000	500		mg/Kg	500	7/31/2012 6:23:35 PM
Lead	4.6	1.2		mg/Kg	5	7/25/2012 5:42:55 PM
Manganese	510	2.0		mg/Kg	20	7/30/2012 7:40:43 PM
Nickel	8.3	2.5		mg/Kg	5	7/26/2012 8:33:08 PM
Selenium	ND	50		mg/Kg	20	7/30/2012 7:40:43 PM
Silver	ND	1.2		mg/Kg	5	7/25/2012 5:42:55 PM
Vanadium	26	12		mg/Kg	5	7/26/2012 8:33:08 PM
Zinc	21	12		mg/Kg	5	7/26/2012 8:33:08 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Aniline	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Anthracene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Azobenzene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/26/2012 7:04:57 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM

Qualifiers:

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
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S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-1 (1.5-2)
Project: SWMU NO.14
Collection Date: 7/16/2012 4:20:00 PM
Lab ID: 1207748-002
Matrix: SOIL
Received Date: 7/18/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/26/2012 7:04:57 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Carbazole	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/26/2012 7:04:57 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/26/2012 7:04:57 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/26/2012 7:04:57 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Chrysene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/26/2012 7:04:57 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/26/2012 7:04:57 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/26/2012 7:04:57 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/26/2012 7:04:57 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/26/2012 7:04:57 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/26/2012 7:04:57 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/26/2012 7:04:57 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/26/2012 7:04:57 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/26/2012 7:04:57 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Fluorene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Isophorone	ND	2.5		mg/Kg	1	7/26/2012 7:04:57 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/26/2012 7:04:57 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Naphthalene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207748-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-1 (1.5-2)
Collection Date: 7/16/2012 4:20:00 PM
Received Date: 7/18/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/26/2012 7:04:57 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/26/2012 7:04:57 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/26/2012 7:04:57 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/26/2012 7:04:57 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Phenol	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Pyrene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Pyridine	ND	2.5		mg/Kg	1	7/26/2012 7:04:57 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/26/2012 7:04:57 PM
Surr: 2,4,6-Tribromophenol	93.8	20.1-121		%REC	1	7/26/2012 7:04:57 PM
Surr: 2-Fluorobiphenyl	77.9	19-133		%REC	1	7/26/2012 7:04:57 PM
Surr: 2-Fluorophenol	75.9	20.2-108		%REC	1	7/26/2012 7:04:57 PM
Surr: 4-Terphenyl-d14	91.3	18.9-115		%REC	1	7/26/2012 7:04:57 PM
Surr: Nitrobenzene-d5	81.4	20.8-123		%REC	1	7/26/2012 7:04:57 PM
Surr: Phenol-d5	67.7	19.8-115		%REC	1	7/26/2012 7:04:57 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Toluene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Ethylbenzene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Xylenes, Total	ND	1.74		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Methyl tert-butyl ether (MTBE)	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,2,4-Trimethylbenzene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,3,5-Trimethylbenzene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,2-Dichloroethane (EDC)	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,2-Dibromoethane (EDB)	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Naphthalene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1-Methylnaphthalene	ND	3.48		µg/Kg-dry	1	7/18/2012 4:03:02 PM
2-Methylnaphthalene	ND	3.48		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Acetone	ND	8.71		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Bromobenzene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Bromodichloromethane	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Bromoform	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
2-Butanone	ND	1.74		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Carbon tetrachloride	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Chlorobenzene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Chloroethane	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Chloroform	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207748-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-1 (1.5-2)
Collection Date: 7/16/2012 4:20:00 PM
Received Date: 7/18/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
2-Chlorotoluene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Carbon disulfide	ND	1.74		µg/Kg-dry	1	7/18/2012 4:03:02 PM
4-Chlorotoluene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
cis-1,2-DCE	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
cis-1,3-Dichloropropene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,2-Dibromo-3-chloropropane	ND	1.74		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Dibromochloromethane	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Dibromomethane	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,2-Dichlorobenzene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,3-Dichlorobenzene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,4-Dichlorobenzene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Dichlorodifluoromethane	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,1-Dichloroethane	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,1-Dichloroethene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,2-Dichloropropane	ND	1.74		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,3-Dichloropropane	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
2,2-Dichloropropane	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,1-Dichloropropene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Hexachlorobutadiene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Isopropylbenzene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
4-Isopropyltoluene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Methylene chloride	ND	8.71		µg/Kg-dry	1	7/18/2012 4:03:02 PM
n-Butylbenzene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
2-Hexanone	ND	1.74		µg/Kg-dry	1	7/18/2012 4:03:02 PM
n-Propylbenzene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
sec-Butylbenzene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Styrene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
4-Methyl-2-pentanone	ND	1.74		µg/Kg-dry	1	7/18/2012 4:03:02 PM
tert-Butylbenzene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,1,1,2-Tetrachloroethane	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,1,2,2-Tetrachloroethane	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Tetrachloroethene (PCE)	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
trans-1,2-DCE	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
trans-1,3-Dichloropropene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,2,3-Trichlorobenzene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,2,4-Trichlorobenzene	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,1,1-Trichloroethane	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,1,2-Trichloroethane	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Trichloroethene (TCE)	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Trichlorofluoromethane	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
1,2,3-Trichloropropane	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207748-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-1 (1.5-2)
Collection Date: 7/16/2012 4:20:00 PM
Received Date: 7/18/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.871		µg/Kg-dry	1	7/18/2012 4:03:02 PM
Surr: 1,2-Dichloroethane-d4	99.3	70-130		%REC	1	7/18/2012 4:03:02 PM
Surr: 4-Bromofluorobenzene	92.4	70-130		%REC	1	7/18/2012 4:03:02 PM
Surr: Dibromofluoromethane	96.4	70-130		%REC	1	7/18/2012 4:03:02 PM
Surr: Toluene-d8	102	70-130		%REC	1	7/18/2012 4:03:02 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207748-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-1 (10-12)
Collection Date: 7/16/2012 4:30:00 PM
Received Date: 7/18/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	220	10		mg/Kg	1	7/20/2012 8:26:08 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/20/2012 8:26:08 AM
Surr: DNOP	114	77.6-140		%REC	1	7/20/2012 8:26:08 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/21/2012 4:56:40 AM
Surr: BFB	124	69.7-121	S	%REC	1	7/21/2012 4:56:40 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	7/20/2012 3:01:39 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	7/26/2012 8:35:53 PM
Arsenic	ND	12		mg/Kg	5	7/25/2012 5:47:33 PM
Barium	1100	5.0		mg/Kg	50	7/25/2012 5:56:42 PM
Beryllium	ND	0.75		mg/Kg	5	7/26/2012 8:35:53 PM
Cadmium	ND	0.50		mg/Kg	5	7/25/2012 5:47:33 PM
Chromium	11	1.5		mg/Kg	5	7/25/2012 5:47:33 PM
Cobalt	5.0	1.5		mg/Kg	5	7/26/2012 8:35:53 PM
Iron	14000	500		mg/Kg	500	7/31/2012 6:26:11 PM
Lead	2.5	1.2		mg/Kg	5	7/25/2012 5:47:33 PM
Manganese	590	2.0		mg/Kg	20	7/30/2012 7:56:33 PM
Nickel	7.6	2.5		mg/Kg	5	7/26/2012 8:35:53 PM
Selenium	ND	12		mg/Kg	5	7/30/2012 7:53:56 PM
Silver	ND	1.2		mg/Kg	5	7/25/2012 5:47:33 PM
Vanadium	24	12		mg/Kg	5	7/26/2012 8:35:53 PM
Zinc	20	12		mg/Kg	5	7/26/2012 8:35:53 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Acenaphthylene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Aniline	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Anthracene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Azobenzene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Benzoic acid	ND	0.50		mg/Kg	1	7/26/2012 7:34:47 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207748-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-1 (10-12)
Collection Date: 7/16/2012 4:30:00 PM
Received Date: 7/18/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/26/2012 7:34:47 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Carbazole	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/26/2012 7:34:47 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	7/26/2012 7:34:47 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/26/2012 7:34:47 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Chrysene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/26/2012 7:34:47 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	7/26/2012 7:34:47 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Dibenzofuran	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/26/2012 7:34:47 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/26/2012 7:34:47 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/26/2012 7:34:47 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/26/2012 7:34:47 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/26/2012 7:34:47 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/26/2012 7:34:47 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/26/2012 7:34:47 PM
Fluoranthene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Fluorene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Hexachloroethane	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Isophorone	ND	0.50		mg/Kg	1	7/26/2012 7:34:47 PM
1-Methylnaphthalene	0.49	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
2-Methylphenol	ND	0.50		mg/Kg	1	7/26/2012 7:34:47 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Naphthalene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207748-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-1 (10-12)
Collection Date: 7/16/2012 4:30:00 PM
Received Date: 7/18/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	7/26/2012 7:34:47 PM
Nitrobenzene	ND	0.50		mg/Kg	1	7/26/2012 7:34:47 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	7/26/2012 7:34:47 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	7/26/2012 7:34:47 PM
Phenanthrene	0.57	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Phenol	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Pyrene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Pyridine	ND	0.50		mg/Kg	1	7/26/2012 7:34:47 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/26/2012 7:34:47 PM
Surr: 2,4,6-Tribromophenol	81.4	20.1-121		%REC	1	7/26/2012 7:34:47 PM
Surr: 2-Fluorobiphenyl	79.0	19-133		%REC	1	7/26/2012 7:34:47 PM
Surr: 2-Fluorophenol	66.6	20.2-108		%REC	1	7/26/2012 7:34:47 PM
Surr: 4-Terphenyl-d14	75.6	18.9-115		%REC	1	7/26/2012 7:34:47 PM
Surr: Nitrobenzene-d5	77.7	20.8-123		%REC	1	7/26/2012 7:34:47 PM
Surr: Phenol-d5	72.5	19.8-115		%REC	1	7/26/2012 7:34:47 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Toluene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Ethylbenzene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Xylenes, Total	ND	1.76		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Methyl tert-butyl ether (MTBE)	13.1	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,2,4-Trimethylbenzene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,3,5-Trimethylbenzene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,2-Dichloroethane (EDC)	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,2-Dibromoethane (EDB)	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Naphthalene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1-Methylnaphthalene	ND	3.52		µg/Kg-dry	1	7/18/2012 4:33:06 PM
2-Methylnaphthalene	ND	3.52		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Acetone	ND	8.81		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Bromobenzene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Bromodichloromethane	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Bromoform	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
2-Butanone	ND	1.76		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Carbon tetrachloride	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Chlorobenzene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Chloroethane	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Chloroform	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207748-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-1 (10-12)
Collection Date: 7/16/2012 4:30:00 PM
Received Date: 7/18/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
2-Chlorotoluene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Carbon disulfide	ND	1.76		µg/Kg-dry	1	7/18/2012 4:33:06 PM
4-Chlorotoluene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
cis-1,2-DCE	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
cis-1,3-Dichloropropene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,2-Dibromo-3-chloropropane	ND	1.76		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Dibromochloromethane	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Dibromomethane	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,2-Dichlorobenzene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,3-Dichlorobenzene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,4-Dichlorobenzene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Dichlorodifluoromethane	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,1-Dichloroethane	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,1-Dichloroethene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,2-Dichloropropane	ND	1.76		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,3-Dichloropropane	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
2,2-Dichloropropane	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,1-Dichloropropene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Hexachlorobutadiene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Isopropylbenzene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
4-Isopropyltoluene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Methylene chloride	ND	8.81		µg/Kg-dry	1	7/18/2012 4:33:06 PM
n-Butylbenzene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
2-Hexanone	ND	1.76		µg/Kg-dry	1	7/18/2012 4:33:06 PM
n-Propylbenzene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
sec-Butylbenzene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Styrene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
4-Methyl-2-pentanone	ND	1.76		µg/Kg-dry	1	7/18/2012 4:33:06 PM
tert-Butylbenzene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,1,1,2-Tetrachloroethane	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,1,2,2-Tetrachloroethane	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Tetrachloroethene (PCE)	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
trans-1,2-DCE	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
trans-1,3-Dichloropropene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,2,3-Trichlorobenzene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,2,4-Trichlorobenzene	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,1,1-Trichloroethane	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,1,2-Trichloroethane	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Trichloroethene (TCE)	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Trichlorofluoromethane	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
1,2,3-Trichloropropane	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207748-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-1 (10-12)
Collection Date: 7/16/2012 4:30:00 PM
Received Date: 7/18/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.881		µg/Kg-dry	1	7/18/2012 4:33:06 PM
Surr: 1,2-Dichloroethane-d4	99.4	70-130		%REC	1	7/18/2012 4:33:06 PM
Surr: 4-Bromofluorobenzene	87.2	70-130		%REC	1	7/18/2012 4:33:06 PM
Surr: Dibromofluoromethane	99.4	70-130		%REC	1	7/18/2012 4:33:06 PM
Surr: Toluene-d8	101	70-130		%REC	1	7/18/2012 4:33:06 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120720030
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1207748
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120720030-001	**Sampling Date**	7/16/2012	**Date/Time Received**	7/20/2012 1:15 PM
Client Sample ID	1207748-001D / SWMU 14-1 (0-0.5)	**Sampling Time**	4:15 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.01	7/30/2012	CRW	EPA 335.4	

Sample Number	120720030-002	**Sampling Date**	7/16/2012	**Date/Time Received**	7/20/2012 1:15 PM
Client Sample ID	1207748-002D / SWMU 14-1 (1.5-2)	**Sampling Time**	4:20 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.01	7/30/2012	CRW	EPA 335.4	

Sample Number	120720030-003	**Sampling Date**	7/16/2012	**Date/Time Received**	7/20/2012 1:15 PM
Client Sample ID	1207748-003D / SWMU 14-1 (10-12)	**Sampling Time**	4:30 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.01	7/30/2012	CRW	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207748

03-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	MB-2911	SampType:	MBLK	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	2911	RunNo:	4133					
Prep Date:	7/19/2012	Analysis Date:	7/19/2012	SeqNo:	118627	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		114	77.6	140			

Sample ID	LCS-2911	SampType:	LCS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	2911	RunNo:	4133					
Prep Date:	7/19/2012	Analysis Date:	7/19/2012	SeqNo:	118783	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.1	52.6	130			
Surr: DNOP	4.6		5.000		91.0	77.6	140			

Sample ID	1207748-001CMS	SampType:	MS	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	SWMU 14-1 (0-0.5)	Batch ID:	2911	RunNo:	4172					
Prep Date:	7/19/2012	Analysis Date:	7/20/2012	SeqNo:	120061	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	69	9.8	49.21	33.03	73.8	57.2	146			
Surr: DNOP	4.7		4.921		95.0	77.6	140			

Sample ID	1207748-001CMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	SWMU 14-1 (0-0.5)	Batch ID:	2911	RunNo:	4172					
Prep Date:	7/19/2012	Analysis Date:	7/20/2012	SeqNo:	120062	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	75	10	50.15	33.03	83.6	57.2	146	7.81	24.5	
Surr: DNOP	4.7		5.015		94.2	77.6	140	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207748

03-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-2878	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBS	Batch ID:	2878	RunNo:	4160					
Prep Date:	7/18/2012	Analysis Date:	7/19/2012	SeqNo:	119360	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		103	69.7	121			

Sample ID	LCS-2878	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSS	Batch ID:	2878	RunNo:	4160					
Prep Date:	7/18/2012	Analysis Date:	7/19/2012	SeqNo:	119361	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	101	85	115			
Surr: BFB	1100		1000		109	69.7	121			

Sample ID	1207548-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	2878	RunNo:	4160					
Prep Date:	7/18/2012	Analysis Date:	7/19/2012	SeqNo:	119368	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.7	23.39	0	98.5	85.4	147			
Surr: BFB	990		935.5		106	69.7	121			

Sample ID	1207548-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	2878	RunNo:	4160					
Prep Date:	7/18/2012	Analysis Date:	7/19/2012	SeqNo:	119369	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.8	23.85	0	95.0	85.4	147	1.61	19.2	
Surr: BFB	1000		954.2		109	69.7	121	0	0	

Sample ID	MB-2915	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBS	Batch ID:	2915	RunNo:	4189					
Prep Date:	7/19/2012	Analysis Date:	7/21/2012	SeqNo:	121067	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		99.7	69.7	121			

Sample ID	LCS-2915	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSS	Batch ID:	2915	RunNo:	4189					
Prep Date:	7/19/2012	Analysis Date:	7/21/2012	SeqNo:	121068	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	109	85	115			
Surr: BFB	1000		1000		104	69.7	121			

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207748**

03-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-2881**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **2881**	RunNo: **4146**
Prep Date: **7/18/2012**	Analysis Date: **7/18/2012**	SeqNo: **118507** Units: **µg/Kg-dry**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.00								
Toluene	ND	1.00								
Ethylbenzene	ND	1.00								
Xylenes, Total	ND	2.00								
Methyl tert-butyl ether (MTBE)	ND	1.00								
1,2,4-Trimethylbenzene	ND	1.00								
1,3,5-Trimethylbenzene	ND	1.00								
1,2-Dichloroethane (EDC)	ND	1.00								
1,2-Dibromoethane (EDB)	ND	1.00								
Naphthalene	ND	1.00								
1-Methylnaphthalene	ND	4.00								
2-Methylnaphthalene	ND	4.00								
Acetone	ND	10.0								
Bromobenzene	ND	1.00								
Bromodichloromethane	ND	1.00								
Bromoform	ND	1.00								
2-Butanone	ND	2.00								
Carbon tetrachloride	ND	1.00								
Chlorobenzene	ND	1.00								
Chloroethane	ND	1.00								
Chloroform	ND	1.00								
Chloromethane	ND	1.00								
2-Chlorotoluene	ND	1.00								
Carbon disulfide	ND	2.00								
4-Chlorotoluene	ND	1.00								
cis-1,2-DCE	ND	1.00								
cis-1,3-Dichloropropene	ND	1.00								
1,2-Dibromo-3-chloropropane	ND	2.00								
Dibromochloromethane	ND	1.00								
Dibromomethane	ND	1.00								
1,2-Dichlorobenzene	ND	1.00								
1,3-Dichlorobenzene	ND	1.00								
1,4-Dichlorobenzene	ND	1.00								
Dichlorodifluoromethane	ND	1.00								
1,1-Dichloroethane	ND	1.00								
1,1-Dichloroethene	ND	1.00								
1,2-Dichloropropane	ND	2.00								
1,3-Dichloropropane	ND	1.00								
2,2-Dichloropropane	ND	1.00								
1,1-Dichloropropene	ND	1.00								
Hexachlorobutadiene	ND	1.00								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207748

03-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	mb-2881	SampType:	MBLK	TestCode:	Method 8260B/5035LOW: VOLATILES
Client ID:	PBS	Batch ID:	2881	RunNo:	4146
Prep Date:	7/18/2012	Analysis Date:	7/18/2012	SeqNo:	118507
Units:	µg/Kg-dry				

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Isopropylbenzene	ND	1.00								
4-Isopropyltoluene	ND	1.00								
Methylene chloride	ND	10.0								
n-Butylbenzene	ND	1.00								
2-Hexanone	ND	2.00								
n-Propylbenzene	ND	1.00								
sec-Butylbenzene	ND	1.00								
Styrene	ND	1.00								
4-Methyl-2-pentanone	ND	2.00								
tert-Butylbenzene	ND	1.00								
1,1,1,2-Tetrachloroethane	ND	1.00								
1,1,2,2-Tetrachloroethane	ND	1.00								
Tetrachloroethene (PCE)	ND	1.00								
trans-1,2-DCE	ND	1.00								
trans-1,3-Dichloropropene	ND	1.00								
1,2,3-Trichlorobenzene	ND	1.00								
1,2,4-Trichlorobenzene	ND	1.00								
Trichloroethane	ND	1.00								
Trichloroethane	ND	1.00								
Trichloroethene (TCE)	ND	1.00								
Trichlorofluoromethane	ND	1.00								
1,2,3-Trichloropropane	ND	1.00								
Vinyl chloride	ND	1.00								
Surr: 1,2-Dichloroethane-d4	55.0		50.00		110	70	130			
Surr: 4-Bromofluorobenzene	46.9		50.00		93.9	70	130			
Surr: Dibromofluoromethane	50.6		50.00		101	70	130			
Surr: Toluene-d8	47.4		50.00		94.7	70	130			

Sample ID	lcs-2881	SampType:	LCS	TestCode:	Method 8260B/5035LOW: VOLATILES
Client ID:	LCSS	Batch ID:	2881	RunNo:	4146
Prep Date:	7/18/2012	Analysis Date:	7/18/2012	SeqNo:	118508
Units:	µg/Kg-dry				

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	10.2	1.00	10.00	0	102	60	140			
Toluene	10.8	1.00	10.00	0	108	60	140			
Chlorobenzene	11.1	1.00	10.00	0	111	60	140			
1,1-Dichloroethene	11.7	1.00	10.00	0	117	60	140			
Trichloroethene (TCE)	11.2	1.00	10.00	0	112	60	140			
Surr: 1,2-Dichloroethane-d4	54.9		50.00		110	70	130			
Surr: 4-Bromofluorobenzene	50.2		50.00		100	70	130			
Surr: Dibromofluoromethane	51.4		50.00		103	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207748**

03-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	**lcs-2881**	SampType: **LCS**		TestCode: **Method 8260B/5035LOW: VOLATILES**					
Client ID:	**LCSS**	Batch ID: **2881**		RunNo: **4146**					
Prep Date:	**7/18/2012**	Analysis Date: **7/18/2012**		SeqNo: **118508**		Units: **µg/Kg-dry**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	50.3		50.00		101	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207748**

03-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **mb-2996**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBS**	Batch ID: **2996**	RunNo: **4454**	
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124345**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
enzyl phthalate	ND	0.20								
azole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207748**

03-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-2996**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **2996**	RunNo: **4454**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124345** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.4		3.330		102	20.1	121			
Surr: 2-Fluorobiphenyl	1.3		1.670		79.2	19	133			
Surr: 2-Fluorophenol	2.2		3.330		67.3	20.2	108			
Surr: 4-Terphenyl-d14	1.5		1.670		87.9	18.9	115			
Surr: Nitrobenzene-d5	1.3		1.670		77.2	20.8	123			
Surr: Phenol-d5	2.7		3.330		82.4	19.8	115			

Sample ID **lcs-2996**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **2996**	RunNo: **4454**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124346** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207748**

03-Aug-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **lcs-2996**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **2996**	RunNo: **4454**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124346** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	69.0	49.7	98.1			
4-Chloro-3-methylphenol	2.3	0.50	3.330	0	70.3	43.8	89.1			
2-Chlorophenol	2.3	0.20	3.330	0	67.9	41.1	96.9			
1,4-Dichlorobenzene	1.0	0.20	1.670	0	61.9	41	97.4			
2,4-Dinitrotoluene	1.4	0.50	1.670	0	80.8	44.4	104			
N-Nitrosodi-n-propylamine	1.2	0.20	1.670	0	72.1	39.1	86.9			
4-Nitrophenol	2.8	0.25	3.330	0	82.9	44.2	107			
Pentachlorophenol	2.3	0.40	3.330	0	68.1	36.2	80			
Phenol	2.5	0.20	3.330	0	73.9	42.7	92.7			
Pyrene	1.0	0.20	1.670	0	62.2	34.7	98.8			
1,2,4-Trichlorobenzene	1.2	0.20	1.670	0	72.4	37.8	98.3			
Surr: 2,4,6-Tribromophenol	2.8		3.330		82.7	20.1	121			
Surr: 2-Fluorobiphenyl	1.3		1.670		75.6	19	133			
Surr: 2-Fluorophenol	2.2		3.330		66.8	20.2	108			
Surr: 4-Terphenyl-d14	1.3		1.670		78.1	18.9	115			
Surr: Nitrobenzene-d5	1.3		1.670		77.8	20.8	123			
Surr: Phenol-d5	2.5		3.330		74.7	19.8	115			

ple ID **1207666-001Ams**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **BatchQC**	Batch ID: **2996**	RunNo: **4454**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124359** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	6.3	1.0	8.322	0	75.9	38.6	100			
4-Chloro-3-methylphenol	14	2.5	16.59	0	86.5	35.8	108			
2-Chlorophenol	13	1.0	16.59	0	79.4	48.2	96.1			
1,4-Dichlorobenzene	6.0	1.0	8.322	0	72.5	42.5	97.6			
2,4-Dinitrotoluene	7.0	2.5	8.322	0	84.0	51.2	108			
N-Nitrosodi-n-propylamine	7.0	1.0	8.322	0	84.7	31.6	114			
4-Nitrophenol	16	1.2	16.59	0.3837	94.3	22.7	144			
Pentachlorophenol	9.8	2.0	16.59	0	59.3	24	109			
Phenol	17	1.0	16.59	6.194	66.9	33.1	108			
Pyrene	5.2	1.0	8.322	0	62.5	42.7	98.9			
1,2,4-Trichlorobenzene	6.1	1.0	8.322	0	73.0	27.1	118			
Surr: 2,4,6-Tribromophenol	15		16.59		92.7	20.1	121			
Surr: 2-Fluorobiphenyl	6.6		8.322		79.8	19	133			
Surr: 2-Fluorophenol	13		16.59		75.7	20.2	108			
Surr: 4-Terphenyl-d14	6.3		8.322		75.6	18.9	115			
Surr: Nitrobenzene-d5	6.7		8.322		80.5	20.8	123			
Surr: Phenol-d5	15		16.59		88.8	19.8	115			

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207748**

03-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207666-001Amsd** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **BatchQC** Batch ID: **2996** RunNo: **4454**

Prep Date: **7/24/2012** Analysis Date: **7/26/2012** SeqNo: **124360** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	6.2	1.0	8.406	0	73.4	38.6	100	2.26	20	
4-Chloro-3-methylphenol	14	2.5	16.76	0	81.8	35.8	108	4.66	20	
2-Chlorophenol	13	1.0	16.76	0	79.6	48.2	96.1	1.28	20	
1,4-Dichlorobenzene	6.2	1.0	8.406	0	73.6	42.5	97.6	2.48	20	
2,4-Dinitrotoluene	6.8	2.5	8.406	0	81.0	51.2	108	2.63	20	
N-Nitrosodi-n-propylamine	7.4	1.0	8.406	0	88.4	31.6	114	5.25	20	
4-Nitrophenol	15	1.3	16.76	0.3837	86.4	22.7	144	7.52	20	
Pentachlorophenol	10	2.0	16.76	0	61.0	24	109	3.78	20	
Phenol	20	1.0	16.76	6.194	81.0	33.1	108	13.4	20	
Pyrene	4.8	1.0	8.406	0	57.5	42.7	98.9	7.41	20	
1,2,4-Trichlorobenzene	6.3	1.0	8.406	0	74.7	27.1	118	3.30	20	
Surr: 2,4,6-Tribromophenol	15		16.76		88.4	20.1	121	0	0	
Surr: 2-Fluorobiphenyl	6.3		8.406		75.1	19	133	0	0	
Surr: 2-Fluorophenol	14		16.76		81.8	20.2	108	0	0	
Surr: 4-Terphenyl-d14	6.1		8.406		72.3	18.9	115	0	0	
Surr: Nitrobenzene-d5	6.7		8.406		79.6	20.8	123	0	0	
Surr: Phenol-d5	15		16.76		88.2	19.8	115	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207748**

03-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-2919	SampType:	MBLK		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	2919		RunNo:	4199				
Prep Date:	7/19/2012	Analysis Date:	7/20/2012		SeqNo:	120246	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-2919	SampType:	LCS		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	2919		RunNo:	4199				
Prep Date:	7/19/2012	Analysis Date:	7/20/2012		SeqNo:	120247	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	102	80	120			

Sample ID	1207796-008AMS	SampType:	MS		TestCode:	EPA Method 7471: Mercury				
Client ID:	BatchQC	Batch ID:	2919		RunNo:	4199				
Prep Date:	7/19/2012	Analysis Date:	7/20/2012		SeqNo:	120251	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1661	0	98.8	75	125			

Sample ID	1207796-008AMSD	SampType:	MSD		TestCode:	EPA Method 7471: Mercury				
Client ID:	BatchQC	Batch ID:	2919		RunNo:	4199				
Prep Date:	7/19/2012	Analysis Date:	7/20/2012		SeqNo:	120252	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1643	0	98.0	75	125	1.87	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207748**

03-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB-2958** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **PBS** Batch ID: **2958** RunNo: **4414**

Prep Date: **7/22/2012** Analysis Date: **7/25/2012** SeqNo: **123218** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Lead	ND	0.25								
Selenium	ND	2.5								
Silver	ND	0.25								

Sample ID **LCS-2958** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **LCSS** Batch ID: **2958** RunNo: **4414**

Prep Date: **7/22/2012** Analysis Date: **7/25/2012** SeqNo: **123219** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	25	2.5	25.00	0.8270	98.4	80	120			
Barium	25	0.10	25.00	0	101	80	120			
Cadmium	25	0.10	25.00	0	101	80	120			
Chromium	25	0.30	25.00	0	99.0	80	120			
Lead	25	0.25	25.00	0	101	80	120			
Selenium	23	2.5	25.00	0	93.8	80	120			
Silver	5.1	0.25	5.000	0	101	80	120			

Sample ID **1207556-001AMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **BatchQC** Batch ID: **2958** RunNo: **4414**

Prep Date: **7/22/2012** Analysis Date: **7/25/2012** SeqNo: **123222** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5	24.80	0	0	75	125			S
Barium	25	0.10	24.80	1.334	97.1	75	125			
Cadmium	25	0.10	24.80	0	100	75	125			
Chromium	34	0.30	24.80	9.377	100	75	125			
Lead	71	0.25	24.80	46.37	99.3	75	125			E
Selenium	ND	2.5	24.80	0	0	75	125			S
Silver	4.8	0.25	4.961	0	97.6	75	125			

Sample ID **1207556-001AMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **BatchQC** Batch ID: **2958** RunNo: **4414**

Prep Date: **7/22/2012** Analysis Date: **7/25/2012** SeqNo: **123225** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5	24.83	0	0	75	125	0	20	S
Barium	25	0.10	24.83	1.334	95.3	75	125	1.65	20	
Cadmium	24	0.10	24.83	0	98.3	75	125	1.75	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207748**

03-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	**1207556-001AMSD**	SampType: **MSD**		TestCode: **EPA Method 6010B: Soil Metals**	
Client ID:	**BatchQC**	Batch ID: **2958**		RunNo: **4414**	
Prep Date:	**7/22/2012**	Analysis Date: **7/25/2012**		SeqNo: **123225**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	32	0.30	24.83	9.377	92.7	75	125	5.72	20	
Lead	70	0.25	24.83	46.37	93.7	75	125	1.95	20	E
Selenium	ND	2.5	24.83	0	0	75	125	0	20	S
Silver	4.8	0.25	4.966	0	95.9	75	125	1.69	20	

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup

Work Order Number: 1207748

Received by/date: 07/18/12

Logged By: Ashley Gallegos 7/18/2012 9:15:00 AM

Completed By: Ashley Gallegos 7/18/2012 2:44:10 PM

Reviewed By: JB 07/18/12

Chain of Custody

1.	Were seals intact?	Yes	No	Not Present ✓
2.	Is Chain of Custody complete?	Yes ✓	No	Not Present
3.	How was the sample delivered?	FedEx		

Log In

4.	Coolers are present? (see 19. for cooler specific information)	Yes ✓	No	NA
5.	Was an attempt made to cool the samples?	Yes ✓	No	NA
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ✓	No	NA
7.	Sample(s) in proper container(s)?	Yes ✓	No	
8.	Sufficient sample volume for indicated test(s)?	Yes ✓	No	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ✓	No	
10.	Was preservative added to bottles?	Yes	No ✓	NA
11.	VOA vials have zero headspace?	Yes	No	No VOA Vials ✓
12.	Were any sample containers received broken?	Yes	No ✓	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✓	No	# of preserved bottles checked for pH:
14.	Are matrices correctly identified on Chain of Custody?	Yes ✓	No	(<2 or >12 unless noted)
15.	Is it clear what analyses were requested?	Yes ✓	No	Adjusted?
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✓	No	Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes No NA ✓

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SOUTHWEST, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU NO.14
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
7/16/12	1615	SOIL	SWMU 14-1 (0-0.5)	2 ENCORES	-	-001										X						
				2 VIALS	MEOH											X						
				2 JARS	-											X	X	X	X			
	1620	SOIL	SWMU 14-1 (1.5-2)	2 ENCORES	-	-002										X						
				2 VIALS	MEOH											X						
				2 JARS	-											X	X	X	X			
	1630	SOIL	SWMU 14-1 (10-12)	2 ENCORES	-	-003										X						
				2 VIALS	MEOH											X						
				2 JARS	-											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
7/17	0730			07/18/12	0915	
Date:	Time:	Relinquished by:	Received by:	Date	Time	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 22, 2012

Scott Crouch
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.14 OrderNo.: 1207900

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 10 sample(s) on 7/20/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1207900**
Date Reported: **8/22/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-3 (0-0.5')
Collection Date: 7/18/2012 11:25:00 AM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	640	200		mg/Kg	20	7/21/2012 9:53:29 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	7/21/2012 9:53:29 PM
Surr: DNOP	0	77.6-140	S	%REC	20	7/21/2012 9:53:29 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	20		mg/Kg	4	7/25/2012 4:17:15 PM
Surr: BFB	99.8	84-116		%REC	4	7/25/2012 4:17:15 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.15	0.033		mg/Kg	1	8/2/2012 10:41:11 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:36:25 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:36:25 PM
Barium	920	5.0		mg/Kg	50	8/8/2012 10:13:35 AM
Beryllium	0.77	0.75		mg/Kg	5	8/5/2012 5:36:25 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:36:25 PM
Chromium	11	1.5		mg/Kg	5	8/5/2012 5:36:25 PM
Cobalt	5.1	1.5		mg/Kg	5	8/5/2012 5:36:25 PM
Iron	13000	500		mg/Kg	500	8/8/2012 10:16:02 AM
Lead	2.7	1.2		mg/Kg	5	8/5/2012 5:36:25 PM
Manganese	600	5.0		mg/Kg	50	8/8/2012 10:13:35 AM
Nickel	8.0	2.5		mg/Kg	5	8/5/2012 5:36:25 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:36:25 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:36:25 PM
Vanadium	23	12		mg/Kg	5	8/5/2012 5:36:25 PM
Zinc	42	12		mg/Kg	5	8/5/2012 5:36:25 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Aniline	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Anthracene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Azobenzene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/25/2012 6:47:58 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-3 (0-0.5')
Collection Date: 7/18/2012 11:25:00 AM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/25/2012 6:47:58 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Carbazole	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/25/2012 6:47:58 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/25/2012 6:47:58 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/25/2012 6:47:58 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Chrysene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/25/2012 6:47:58 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/25/2012 6:47:58 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/25/2012 6:47:58 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/25/2012 6:47:58 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/25/2012 6:47:58 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/25/2012 6:47:58 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/25/2012 6:47:58 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/25/2012 6:47:58 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/25/2012 6:47:58 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Fluorene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Isophorone	ND	2.5		mg/Kg	1	7/25/2012 6:47:58 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/25/2012 6:47:58 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Naphthalene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-3 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/18/2012 11:25:00 AM
Lab ID: 1207900-001
Matrix: SOIL
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/25/2012 6:47:58 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/25/2012 6:47:58 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/25/2012 6:47:58 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/25/2012 6:47:58 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Phenol	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Pyrene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Pyridine	ND	2.5		mg/Kg	1	7/25/2012 6:47:58 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/25/2012 6:47:58 PM
Surr: 2,4,6-Tribromophenol	115	20.1-121		%REC	1	7/25/2012 6:47:58 PM
Surr: 2-Fluorobiphenyl	108	19-133		%REC	1	7/25/2012 6:47:58 PM
Surr: 2-Fluorophenol	99.8	20.2-108		%REC	1	7/25/2012 6:47:58 PM
Surr: 4-Terphenyl-d14	112	18.9-115		%REC	1	7/25/2012 6:47:58 PM
Surr: Nitrobenzene-d5	114	20.8-123		%REC	1	7/25/2012 6:47:58 PM
Surr: Phenol-d5	98.8	19.8-115		%REC	1	7/25/2012 6:47:58 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Toluene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Ethylbenzene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Xylenes, Total	ND	2.00		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Methyl tert-butyl ether (MTBE)	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,2,4-Trimethylbenzene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,3,5-Trimethylbenzene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,2-Dichloroethane (EDC)	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,2-Dibromoethane (EDB)	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Naphthalene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1-Methylnaphthalene	ND	3.99		µg/Kg-dry	1	7/20/2012 11:53:02 AM
2-Methylnaphthalene	ND	3.99		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Acetone	ND	9.99		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Bromobenzene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Bromodichloromethane	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Bromoform	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
2-Butanone	ND	2.00		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Carbon tetrachloride	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Chlorobenzene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Chloroethane	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Chloroform	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-3 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/18/2012 11:25:00 AM
Lab ID: 1207900-001
Matrix: SOIL
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
2-Chlorotoluene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Carbon disulfide	ND	2.00		µg/Kg-dry	1	7/20/2012 11:53:02 AM
4-Chlorotoluene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
cis-1,2-DCE	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
cis-1,3-Dichloropropene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,2-Dibromo-3-chloropropane	ND	2.00		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Dibromochloromethane	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Dibromomethane	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,2-Dichlorobenzene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,3-Dichlorobenzene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,4-Dichlorobenzene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Dichlorodifluoromethane	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,1-Dichloroethane	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,1-Dichloroethene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,2-Dichloropropane	ND	2.00		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,3-Dichloropropane	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
2,2-Dichloropropane	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,1-Dichloropropene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Hexachlorobutadiene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Isopropylbenzene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
4-Isopropyltoluene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Methylene chloride	ND	2.00		µg/Kg-dry	1	7/20/2012 11:53:02 AM
n-Butylbenzene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
2-Hexanone	ND	2.00		µg/Kg-dry	1	7/20/2012 11:53:02 AM
n-Propylbenzene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
sec-Butylbenzene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Styrene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
4-Methyl-2-pentanone	ND	2.00		µg/Kg-dry	1	7/20/2012 11:53:02 AM
tert-Butylbenzene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,1,1,2-Tetrachloroethane	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,1,2,2-Tetrachloroethane	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Tetrachloroethene (PCE)	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
trans-1,2-DCE	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
trans-1,3-Dichloropropene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,2,3-Trichlorobenzene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,2,4-Trichlorobenzene	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,1,1-Trichloroethane	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,1,2-Trichloroethane	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Trichloroethene (TCE)	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Trichlorofluoromethane	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
1,2,3-Trichloropropane	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-3 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/18/2012 11:25:00 AM
Lab ID: 1207900-001 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.999		µg/Kg-dry	1	7/20/2012 11:53:02 AM
Surr: 1,2-Dichloroethane-d4	107	70-130		%REC	1	7/20/2012 11:53:02 AM
Surr: 4-Bromofluorobenzene	98.5	70-130		%REC	1	7/20/2012 11:53:02 AM
Surr: Dibromofluoromethane	100	70-130		%REC	1	7/20/2012 11:53:02 AM
Surr: Toluene-d8	110	70-130		%REC	1	7/20/2012 11:53:02 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-3 (1.5-2')
Collection Date: 7/18/2012 12:00:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	280	10		mg/Kg	1	7/22/2012 5:54:53 PM
Motor Oil Range Organics (MRO)	310	50		mg/Kg	1	7/22/2012 5:54:53 PM
Surr: DNOP	118	77.6-140		%REC	1	7/22/2012 5:54:53 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	10		mg/Kg	2	7/25/2012 4:45:55 PM
Surr: BFB	99.2	84-116		%REC	2	7/25/2012 4:45:55 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.23	0.033		mg/Kg	1	8/2/2012 10:42:58 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	2.5		mg/Kg	1	8/5/2012 6:56:24 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:38:48 PM
Barium	560	2.0		mg/Kg	20	8/8/2012 10:18:46 AM
Beryllium	0.65	0.15		mg/Kg	1	8/5/2012 6:56:24 PM
Cadmium	ND	0.10		mg/Kg	1	8/5/2012 6:56:24 PM
Chromium	19	0.30		mg/Kg	1	8/5/2012 6:56:24 PM
Cobalt	3.6	0.30		mg/Kg	1	8/5/2012 6:56:24 PM
Iron	11000	500		mg/Kg	500	8/8/2012 10:21:13 AM
Lead	1.7	0.25		mg/Kg	1	8/5/2012 6:56:24 PM
Manganese	400	2.0		mg/Kg	20	8/8/2012 10:18:46 AM
Nickel	6.0	0.50		mg/Kg	1	8/5/2012 6:56:24 PM
Selenium	ND	2.5		mg/Kg	1	8/5/2012 6:56:24 PM
Silver	ND	0.25		mg/Kg	1	8/5/2012 6:56:24 PM
Vanadium	18	2.5		mg/Kg	1	8/5/2012 6:56:24 PM
Zinc	42	12		mg/Kg	5	8/5/2012 5:38:48 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Aniline	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Anthracene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Azobenzene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/25/2012 7:18:07 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-3 (1.5-2')
Collection Date: 7/18/2012 12:00:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/25/2012 7:18:07 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Carbazole	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/25/2012 7:18:07 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/25/2012 7:18:07 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/25/2012 7:18:07 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Chrysene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/25/2012 7:18:07 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/25/2012 7:18:07 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
3,3´-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/25/2012 7:18:07 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/25/2012 7:18:07 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/25/2012 7:18:07 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/25/2012 7:18:07 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/25/2012 7:18:07 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/25/2012 7:18:07 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/25/2012 7:18:07 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Fluorene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Isophorone	ND	2.5		mg/Kg	1	7/25/2012 7:18:07 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/25/2012 7:18:07 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Naphthalene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-3 (1.5-2')
Collection Date: 7/18/2012 12:00:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/25/2012 7:18:07 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/25/2012 7:18:07 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/25/2012 7:18:07 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/25/2012 7:18:07 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Phenol	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Pyrene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Pyridine	ND	2.5		mg/Kg	1	7/25/2012 7:18:07 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/25/2012 7:18:07 PM
Surr: 2,4,6-Tribromophenol	119	20.1-121		%REC	1	7/25/2012 7:18:07 PM
Surr: 2-Fluorobiphenyl	104	19-133		%REC	1	7/25/2012 7:18:07 PM
Surr: 2-Fluorophenol	94.9	20.2-108		%REC	1	7/25/2012 7:18:07 PM
Surr: 4-Terphenyl-d14	106	18.9-115		%REC	1	7/25/2012 7:18:07 PM
Surr: Nitrobenzene-d5	106	20.8-123		%REC	1	7/25/2012 7:18:07 PM
Surr: Phenol-d5	97.3	19.8-115		%REC	1	7/25/2012 7:18:07 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
Toluene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
Ethylbenzene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
Naphthalene	ND	0.10		mg/Kg	1	7/21/2012 7:35:24 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/21/2012 7:35:24 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/21/2012 7:35:24 AM
Acetone	ND	0.75		mg/Kg	1	7/21/2012 7:35:24 AM
Bromobenzene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
Bromodichloromethane	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
Bromoform	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
Bromomethane	ND	0.15		mg/Kg	1	7/21/2012 7:35:24 AM
2-Butanone	ND	0.50		mg/Kg	1	7/21/2012 7:35:24 AM
Carbon disulfide	ND	0.50		mg/Kg	1	7/21/2012 7:35:24 AM
Carbon tetrachloride	ND	0.10		mg/Kg	1	7/21/2012 7:35:24 AM
Chlorobenzene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
Chloroethane	ND	0.10		mg/Kg	1	7/21/2012 7:35:24 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-3 (1.5-2')
Project: SWMU NO.14
Collection Date: 7/18/2012 12:00:00 PM
Lab ID: 1207900-002 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Chloroform	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
Chloromethane	ND	0.15		mg/Kg	1	7/21/2012 7:35:24 AM
2-Chlorotoluene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
4-Chlorotoluene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
cis-1,2-DCE	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	7/21/2012 7:35:24 AM
Dibromochloromethane	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
Dibromomethane	ND	0.10		mg/Kg	1	7/21/2012 7:35:24 AM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	7/21/2012 7:35:24 AM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	7/21/2012 7:35:24 AM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	7/21/2012 7:35:24 AM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	7/21/2012 7:35:24 AM
2-Hexanone	ND	0.50		mg/Kg	1	7/21/2012 7:35:24 AM
Isopropylbenzene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	7/21/2012 7:35:24 AM
Methylene chloride	ND	0.15		mg/Kg	1	7/21/2012 7:35:24 AM
n-Butylbenzene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
n-Propylbenzene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
sec-Butylbenzene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
Styrene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
tert-Butylbenzene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
trans-1,2-DCE	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	7/21/2012 7:35:24 AM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	7/21/2012 7:35:24 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-3 (1.5-2')
Project: SWMU NO.14
Collection Date: 7/18/2012 12:00:00 PM
Lab ID: 1207900-002 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	0.050		mg/Kg	1	7/21/2012 7:35:24 AM
Xylenes, Total	ND	0.10		mg/Kg	1	7/21/2012 7:35:24 AM
Surr: 1,2-Dichloroethane-d4	95.4	70-130		%REC	1	7/21/2012 7:35:24 AM
Surr: 4-Bromofluorobenzene	99.6	70-130		%REC	1	7/21/2012 7:35:24 AM
Surr: Dibromofluoromethane	93.6	70-130		%REC	1	7/21/2012 7:35:24 AM
Surr: Toluene-d8	101	70-130		%REC	1	7/21/2012 7:35:24 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-3 (8-10')
Project: SWMU NO.14
Collection Date: 7/18/2012 12:15:00 PM
Lab ID: 1207900-003
Matrix: SOIL
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	2000	200		mg/Kg	20	7/21/2012 10:37:45 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	7/21/2012 10:37:45 PM
Surr: DNOP	0	77.6-140	S	%REC	20	7/21/2012 10:37:45 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	7/25/2012 5:14:38 PM
Surr: BFB	126	84-116	S	%REC	20	7/25/2012 5:14:38 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.65	0.16		mg/Kg	5	8/2/2012 10:55:17 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:41:11 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:41:11 PM
Barium	380	2.0		mg/Kg	20	8/8/2012 10:23:59 AM
Beryllium	0.80	0.75		mg/Kg	5	8/5/2012 5:41:11 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:41:11 PM
Chromium	100	1.5		mg/Kg	5	8/5/2012 5:41:11 PM
Cobalt	5.6	1.5		mg/Kg	5	8/5/2012 5:41:11 PM
Iron	14000	500		mg/Kg	500	8/8/2012 10:26:26 AM
Lead	11	1.2		mg/Kg	5	8/5/2012 5:41:11 PM
Manganese	350	2.0		mg/Kg	20	8/8/2012 10:23:59 AM
Nickel	9.3	2.5		mg/Kg	5	8/5/2012 5:41:11 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:41:11 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:41:11 PM
Vanadium	29	12		mg/Kg	5	8/5/2012 5:41:11 PM
Zinc	67	12		mg/Kg	5	8/5/2012 5:41:11 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	2.0	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Acenaphthylene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Aniline	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Anthracene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Azobenzene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Benz(a)anthracene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Benzoic acid	ND	5.0		mg/Kg	1	7/25/2012 7:48:11 PM
Benzyl alcohol	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-3 (8-10')
Collection Date: 7/18/2012 12:15:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	5.0		mg/Kg	1	7/25/2012 7:48:11 PM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Carbazole	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
4-Chloro-3-methylphenol	ND	5.0		mg/Kg	1	7/25/2012 7:48:11 PM
4-Chloroaniline	ND	5.0		mg/Kg	1	7/25/2012 7:48:11 PM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	7/25/2012 7:48:11 PM
2-Chlorophenol	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Chrysene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Di-n-butyl phthalate	ND	5.0		mg/Kg	1	7/25/2012 7:48:11 PM
Di-n-octyl phthalate	ND	2.5		mg/Kg	1	7/25/2012 7:48:11 PM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Dibenzofuran	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
3,3'-Dichlorobenzidine	ND	2.5		mg/Kg	1	7/25/2012 7:48:11 PM
Diethyl phthalate	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Dimethyl phthalate	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	7/25/2012 7:48:11 PM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	7/25/2012 7:48:11 PM
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	1	7/25/2012 7:48:11 PM
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	7/25/2012 7:48:11 PM
2,4-Dinitrotoluene	ND	5.0		mg/Kg	1	7/25/2012 7:48:11 PM
2,6-Dinitrotoluene	ND	5.0		mg/Kg	1	7/25/2012 7:48:11 PM
Fluoranthene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Fluorene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Hexachlorobenzene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Hexachloroethane	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Isophorone	ND	5.0		mg/Kg	1	7/25/2012 7:48:11 PM
1-Methylnaphthalene	24	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
2-Methylnaphthalene	29	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
2-Methylphenol	ND	5.0		mg/Kg	1	7/25/2012 7:48:11 PM
3+4-Methylphenol	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Naphthalene	3.8	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
2-Nitroaniline	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-3 (8-10')
Project: SWMU NO.14
Collection Date: 7/18/2012 12:15:00 PM
Lab ID: 1207900-003 **Matrix:** SOIL
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
4-Nitroaniline	ND	4.0		mg/Kg	1	7/25/2012 7:48:11 PM
Nitrobenzene	ND	5.0		mg/Kg	1	7/25/2012 7:48:11 PM
2-Nitrophenol	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
4-Nitrophenol	ND	2.5		mg/Kg	1	7/25/2012 7:48:11 PM
Pentachlorophenol	ND	4.0		mg/Kg	1	7/25/2012 7:48:11 PM
Phenanthrene	4.8	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Phenol	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Pyrene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Pyridine	ND	5.0		mg/Kg	1	7/25/2012 7:48:11 PM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	7/25/2012 7:48:11 PM
Surr: 2,4,6-Tribromophenol	98.8	20.1-121		%REC	1	7/25/2012 7:48:11 PM
Surr: 2-Fluorobiphenyl	111	19-133		%REC	1	7/25/2012 7:48:11 PM
Surr: 2-Fluorophenol	106	20.2-108		%REC	1	7/25/2012 7:48:11 PM
Surr: 4-Terphenyl-d14	121	18.9-115	S	%REC	1	7/25/2012 7:48:11 PM
Surr: Nitrobenzene-d5	115	20.8-123		%REC	1	7/25/2012 7:48:11 PM
Surr: Phenol-d5	99.0	19.8-115		%REC	1	7/25/2012 7:48:11 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
Toluene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
Ethylbenzene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,2,4-Trimethylbenzene	6.2	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,3,5-Trimethylbenzene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
Naphthalene	3.3	2.0		mg/Kg	20	7/23/2012 2:09:24 PM
1-Methylnaphthalene	18	4.0		mg/Kg	20	7/23/2012 2:09:24 PM
2-Methylnaphthalene	23	4.0		mg/Kg	20	7/23/2012 2:09:24 PM
Acetone	ND	15		mg/Kg	20	7/23/2012 2:09:24 PM
Bromobenzene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
Bromoform	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
Bromomethane	ND	3.0		mg/Kg	20	7/23/2012 2:09:24 PM
2-Butanone	ND	10		mg/Kg	20	7/23/2012 2:09:24 PM
Carbon disulfide	ND	10		mg/Kg	20	7/23/2012 2:09:24 PM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/23/2012 2:09:24 PM
Chlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
Chloroethane	ND	2.0		mg/Kg	20	7/23/2012 2:09:24 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

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CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-3 (8-10')
Collection Date: 7/18/2012 12:15:00 PM
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Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
Chloromethane	ND	3.0		mg/Kg	20	7/23/2012 2:09:24 PM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/23/2012 2:09:24 PM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
Dibromomethane	ND	2.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/23/2012 2:09:24 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/23/2012 2:09:24 PM
2-Hexanone	ND	10		mg/Kg	20	7/23/2012 2:09:24 PM
Isopropylbenzene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
4-Isopropyltoluene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/23/2012 2:09:24 PM
Methylene chloride	ND	3.0		mg/Kg	20	7/23/2012 2:09:24 PM
n-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
n-Propylbenzene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
sec-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
Styrene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,1,2-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/23/2012 2:09:24 PM

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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

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Lab ID: 1207900-003 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	1.0		mg/Kg	20	7/23/2012 2:09:24 PM
Xylenes, Total	ND	2.0		mg/Kg	20	7/23/2012 2:09:24 PM
Surr: 1,2-Dichloroethane-d4	96.1	70-130		%REC	20	7/23/2012 2:09:24 PM
Surr: 4-Bromofluorobenzene	85.4	70-130		%REC	20	7/23/2012 2:09:24 PM
Surr: Dibromofluoromethane	105	70-130		%REC	20	7/23/2012 2:09:24 PM
Surr: Toluene-d8	105	70-130		%REC	20	7/23/2012 2:09:24 PM

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-3 (12-14')
Collection Date: 7/18/2012 12:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	920	190		mg/Kg	20	7/21/2012 10:59:45 PM
Motor Oil Range Organics (MRO)	ND	960		mg/Kg	20	7/21/2012 10:59:45 PM
Surr: DNOP	0	77.6-140	S	%REC	20	7/21/2012 10:59:45 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	7/25/2012 5:43:27 PM
Surr: BFB	129	84-116	S	%REC	20	7/25/2012 5:43:27 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.28	0.033		mg/Kg	1	8/2/2012 10:48:13 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:43:34 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:43:34 PM
Barium	350	2.0		mg/Kg	20	8/8/2012 10:39:57 AM
Beryllium	ND	0.75		mg/Kg	5	8/5/2012 5:43:34 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:43:34 PM
Chromium	110	1.5		mg/Kg	5	8/5/2012 5:43:34 PM
Cobalt	4.9	1.5		mg/Kg	5	8/5/2012 5:43:34 PM
Iron	14000	500		mg/Kg	500	8/8/2012 10:42:25 AM
Lead	12	1.2		mg/Kg	5	8/5/2012 5:43:34 PM
Manganese	570	2.0		mg/Kg	20	8/8/2012 10:39:57 AM
Nickel	8.5	2.5		mg/Kg	5	8/5/2012 5:43:34 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:43:34 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:43:34 PM
Vanadium	31	12		mg/Kg	5	8/5/2012 5:43:34 PM
Zinc	65	12		mg/Kg	5	8/5/2012 5:43:34 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Aniline	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Anthracene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Azobenzene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/25/2012 8:18:17 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM

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CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-3 (12-14')
Collection Date: 7/18/2012 12:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/25/2012 8:18:17 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Carbazole	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/25/2012 8:18:17 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/25/2012 8:18:17 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/25/2012 8:18:17 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Chrysene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/25/2012 8:18:17 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/25/2012 8:18:17 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/25/2012 8:18:17 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/25/2012 8:18:17 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/25/2012 8:18:17 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/25/2012 8:18:17 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/25/2012 8:18:17 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/25/2012 8:18:17 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/25/2012 8:18:17 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Fluorene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Isophorone	ND	2.5		mg/Kg	1	7/25/2012 8:18:17 PM
1-Methylnaphthalene	9.2	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
2-Methylnaphthalene	6.0	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/25/2012 8:18:17 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Naphthalene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM

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EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/25/2012 8:18:17 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/25/2012 8:18:17 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/25/2012 8:18:17 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/25/2012 8:18:17 PM
Phenanthrene	2.2	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Phenol	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Pyrene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Pyridine	ND	2.5		mg/Kg	1	7/25/2012 8:18:17 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/25/2012 8:18:17 PM
Surr: 2,4,6-Tribromophenol	66.2	20.1-121		%REC	1	7/25/2012 8:18:17 PM
Surr: 2-Fluorobiphenyl	73.3	19-133		%REC	1	7/25/2012 8:18:17 PM
Surr: 2-Fluorophenol	73.3	20.2-108		%REC	1	7/25/2012 8:18:17 PM
Surr: 4-Terphenyl-d14	79.0	18.9-115		%REC	1	7/25/2012 8:18:17 PM
Surr: Nitrobenzene-d5	75.4	20.8-123		%REC	1	7/25/2012 8:18:17 PM
Surr: Phenol-d5	71.4	19.8-115		%REC	1	7/25/2012 8:18:17 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
Toluene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
Ethylbenzene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,2,4-Trimethylbenzene	4.3	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,3,5-Trimethylbenzene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
Naphthalene	2.2	2.0		mg/Kg	20	7/23/2012 3:06:28 PM
1-Methylnaphthalene	16	4.0		mg/Kg	20	7/23/2012 3:06:28 PM
2-Methylnaphthalene	16	4.0		mg/Kg	20	7/23/2012 3:06:28 PM
Acetone	ND	15		mg/Kg	20	7/23/2012 3:06:28 PM
Bromobenzene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
Bromoform	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
Bromomethane	ND	3.0		mg/Kg	20	7/23/2012 3:06:28 PM
2-Butanone	ND	10		mg/Kg	20	7/23/2012 3:06:28 PM
Carbon disulfide	ND	10		mg/Kg	20	7/23/2012 3:06:28 PM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/23/2012 3:06:28 PM
Chlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
Chloroethane	ND	2.0		mg/Kg	20	7/23/2012 3:06:28 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-3 (12-14')
Collection Date: 7/18/2012 12:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
Chloromethane	ND	3.0		mg/Kg	20	7/23/2012 3:06:28 PM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/23/2012 3:06:28 PM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
Dibromomethane	ND	2.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/23/2012 3:06:28 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/23/2012 3:06:28 PM
2-Hexanone	ND	10		mg/Kg	20	7/23/2012 3:06:28 PM
Isopropylbenzene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
4-Isopropyltoluene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/23/2012 3:06:28 PM
Methylene chloride	ND	3.0		mg/Kg	20	7/23/2012 3:06:28 PM
n-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
n-Propylbenzene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
sec-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
Styrene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,1,2-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/23/2012 3:06:28 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-3 (12-14')
Collection Date: 7/18/2012 12:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	1.0		mg/Kg	20	7/23/2012 3:06:28 PM
Xylenes, Total	ND	2.0		mg/Kg	20	7/23/2012 3:06:28 PM
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	20	7/23/2012 3:06:28 PM
Surr: 4-Bromofluorobenzene	81.4	70-130		%REC	20	7/23/2012 3:06:28 PM
Surr: Dibromofluoromethane	109	70-130		%REC	20	7/23/2012 3:06:28 PM
Surr: Toluene-d8	105	70-130		%REC	20	7/23/2012 3:06:28 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-3 (25.5-26')
Collection Date: 7/18/2012 12:45:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/21/2012 4:43:23 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/21/2012 4:43:23 PM
Surr: DNOP	116	77.6-140		%REC	1	7/21/2012 4:43:23 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/25/2012 6:41:04 PM
Surr: BFB	99.9	84-116		%REC	1	7/25/2012 6:41:04 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 10:49:59 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:45:59 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:45:59 PM
Barium	630	5.0		mg/Kg	50	8/8/2012 10:45:10 AM
Beryllium	1.1	0.75		mg/Kg	5	8/5/2012 5:45:59 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:45:59 PM
Chromium	17	1.5		mg/Kg	5	8/5/2012 5:45:59 PM
Cobalt	10	1.5		mg/Kg	5	8/5/2012 5:45:59 PM
Iron	21000	500		mg/Kg	500	8/8/2012 10:47:34 AM
Lead	ND	1.2		mg/Kg	5	8/5/2012 5:45:59 PM
Manganese	1400	5.0		mg/Kg	50	8/8/2012 10:45:10 AM
Nickel	17	2.5		mg/Kg	5	8/5/2012 5:45:59 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:45:59 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:45:59 PM
Vanadium	24	12		mg/Kg	5	8/5/2012 5:45:59 PM
Zinc	34	12		mg/Kg	5	8/5/2012 5:45:59 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Acenaphthylene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Aniline	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Anthracene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Azobenzene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Benzoic acid	ND	0.50		mg/Kg	1	7/25/2012 8:48:18 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-3 (25.5-26')
Collection Date: 7/18/2012 12:45:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/25/2012 8:48:18 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Carbazole	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/25/2012 8:48:18 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	7/25/2012 8:48:18 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/25/2012 8:48:18 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Chrysene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/25/2012 8:48:18 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	7/25/2012 8:48:18 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Dibenzofuran	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/25/2012 8:48:18 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/25/2012 8:48:18 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/25/2012 8:48:18 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/25/2012 8:48:18 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/25/2012 8:48:18 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/25/2012 8:48:18 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/25/2012 8:48:18 PM
Fluoranthene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Fluorene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Hexachloroethane	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Isophorone	ND	0.50		mg/Kg	1	7/25/2012 8:48:18 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
2-Methylphenol	ND	0.50		mg/Kg	1	7/25/2012 8:48:18 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Naphthalene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-3 (25.5-26')
Collection Date: 7/18/2012 12:45:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	7/25/2012 8:48:18 PM
Nitrobenzene	ND	0.50		mg/Kg	1	7/25/2012 8:48:18 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	7/25/2012 8:48:18 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	7/25/2012 8:48:18 PM
Phenanthrene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Phenol	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Pyrene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Pyridine	ND	0.50		mg/Kg	1	7/25/2012 8:48:18 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/25/2012 8:48:18 PM
Surr: 2,4,6-Tribromophenol	91.6	20.1-121		%REC	1	7/25/2012 8:48:18 PM
Surr: 2-Fluorobiphenyl	87.5	19-133		%REC	1	7/25/2012 8:48:18 PM
Surr: 2-Fluorophenol	86.6	20.2-108		%REC	1	7/25/2012 8:48:18 PM
Surr: 4-Terphenyl-d14	94.9	18.9-115		%REC	1	7/25/2012 8:48:18 PM
Surr: Nitrobenzene-d5	87.8	20.8-123		%REC	1	7/25/2012 8:48:18 PM
Surr: Phenol-d5	85.6	19.8-115		%REC	1	7/25/2012 8:48:18 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Toluene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Ethylbenzene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Xylenes, Total	ND	1.97		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Methyl tert-butyl ether (MTBE)	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,2,4-Trimethylbenzene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,3,5-Trimethylbenzene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,2-Dichloroethane (EDC)	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,2-Dibromoethane (EDB)	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Naphthalene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1-Methylnaphthalene	ND	3.94		µg/Kg-dry	1	7/20/2012 12:23:18 PM
2-Methylnaphthalene	ND	3.94		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Acetone	ND	9.85		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Bromobenzene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Bromodichloromethane	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Bromoform	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
2-Butanone	ND	1.97		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Carbon tetrachloride	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Chlorobenzene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Chloroethane	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Chloroform	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-3 (25.5-26')
Collection Date: 7/18/2012 12:45:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
2-Chlorotoluene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Carbon disulfide	ND	1.97		µg/Kg-dry	1	7/20/2012 12:23:18 PM
4-Chlorotoluene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
cis-1,2-DCE	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
cis-1,3-Dichloropropene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,2-Dibromo-3-chloropropane	ND	1.97		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Dibromochloromethane	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Dibromomethane	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,2-Dichlorobenzene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,3-Dichlorobenzene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,4-Dichlorobenzene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Dichlorodifluoromethane	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,1-Dichloroethane	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,1-Dichloroethene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,2-Dichloropropane	ND	1.97		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,3-Dichloropropane	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
2,2-Dichloropropane	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,1-Dichloropropene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Hexachlorobutadiene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Isopropylbenzene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
4-Isopropyltoluene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Methylene chloride	ND	1.97		µg/Kg-dry	1	7/20/2012 12:23:18 PM
n-Butylbenzene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
2-Hexanone	ND	1.97		µg/Kg-dry	1	7/20/2012 12:23:18 PM
n-Propylbenzene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
sec-Butylbenzene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Styrene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
4-Methyl-2-pentanone	ND	1.97		µg/Kg-dry	1	7/20/2012 12:23:18 PM
tert-Butylbenzene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,1,1,2-Tetrachloroethane	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,1,2,2-Tetrachloroethane	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Tetrachloroethene (PCE)	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
trans-1,2-DCE	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
trans-1,3-Dichloropropene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,2,3-Trichlorobenzene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,2,4-Trichlorobenzene	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,1,1-Trichloroethane	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,1,2-Trichloroethane	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Trichloroethene (TCE)	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Trichlorofluoromethane	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
1,2,3-Trichloropropane	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-3 (25.5-26')
Project: SWMU NO.14
Collection Date: 7/18/2012 12:45:00 PM
Lab ID: 1207900-005 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.985		µg/Kg-dry	1	7/20/2012 12:23:18 PM
Surr: 1,2-Dichloroethane-d4	97.0	70-130		%REC	1	7/20/2012 12:23:18 PM
Surr: 4-Bromofluorobenzene	91.9	70-130		%REC	1	7/20/2012 12:23:18 PM
Surr: Dibromofluoromethane	96.7	70-130		%REC	1	7/20/2012 12:23:18 PM
Surr: Toluene-d8	95.3	70-130		%REC	1	7/20/2012 12:23:18 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-006 **Matrix:** SOIL

Client Sample ID: SWMU 14-1 (48-50')
Collection Date: 7/18/2012 1:45:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/21/2012 5:05:39 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	7/21/2012 5:05:39 PM
Surr: DNOP	114	77.6-140		%REC	1	7/21/2012 5:05:39 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/25/2012 7:09:50 PM
Surr: BFB	100	84-116		%REC	1	7/25/2012 7:09:50 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 10:57:04 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:48:24 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:48:24 PM
Barium	750	5.0		mg/Kg	50	8/8/2012 10:50:18 AM
Beryllium	1.4	0.75		mg/Kg	5	8/5/2012 5:48:24 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:48:24 PM
Chromium	20	1.5		mg/Kg	5	8/5/2012 5:48:24 PM
Cobalt	6.7	1.5		mg/Kg	5	8/5/2012 5:48:24 PM
Iron	23000	500		mg/Kg	500	8/8/2012 10:52:45 AM
Lead	2.0	1.2		mg/Kg	5	8/5/2012 5:48:24 PM
Manganese	720	5.0		mg/Kg	50	8/8/2012 10:50:18 AM
Nickel	16	2.5		mg/Kg	5	8/5/2012 5:48:24 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:48:24 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:48:24 PM
Vanadium	ND	12		mg/Kg	5	8/5/2012 5:48:24 PM
Zinc	23	12		mg/Kg	5	8/5/2012 5:48:24 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Acenaphthylene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Aniline	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Anthracene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Azobenzene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Benzoic acid	ND	0.50		mg/Kg	1	7/25/2012 9:18:15 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-1 (48-50')
Project: SWMU NO.14
Collection Date: 7/18/2012 1:45:00 PM
Lab ID: 1207900-006 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/25/2012 9:18:15 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Carbazole	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/25/2012 9:18:15 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	7/25/2012 9:18:15 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/25/2012 9:18:15 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Chrysene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/25/2012 9:18:15 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	7/25/2012 9:18:15 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Dibenzofuran	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/25/2012 9:18:15 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/25/2012 9:18:15 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/25/2012 9:18:15 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/25/2012 9:18:15 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/25/2012 9:18:15 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/25/2012 9:18:15 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/25/2012 9:18:15 PM
Fluoranthene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Fluorene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Hexachloroethane	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Isophorone	ND	0.50		mg/Kg	1	7/25/2012 9:18:15 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
2-Methylphenol	ND	0.50		mg/Kg	1	7/25/2012 9:18:15 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Naphthalene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-006 **Matrix:** SOIL

Client Sample ID: SWMU 14-1 (48-50')
Collection Date: 7/18/2012 1:45:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	7/25/2012 9:18:15 PM
Nitrobenzene	ND	0.50		mg/Kg	1	7/25/2012 9:18:15 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	7/25/2012 9:18:15 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	7/25/2012 9:18:15 PM
Phenanthrene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Phenol	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Pyrene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Pyridine	ND	0.50		mg/Kg	1	7/25/2012 9:18:15 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/25/2012 9:18:15 PM
Surr: 2,4,6-Tribromophenol	98.0	20.1-121		%REC	1	7/25/2012 9:18:15 PM
Surr: 2-Fluorobiphenyl	83.9	19-133		%REC	1	7/25/2012 9:18:15 PM
Surr: 2-Fluorophenol	79.3	20.2-108		%REC	1	7/25/2012 9:18:15 PM
Surr: 4-Terphenyl-d14	93.1	18.9-115		%REC	1	7/25/2012 9:18:15 PM
Surr: Nitrobenzene-d5	80.5	20.8-123		%REC	1	7/25/2012 9:18:15 PM
Surr: Phenol-d5	84.7	19.8-115		%REC	1	7/25/2012 9:18:15 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Toluene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Ethylbenzene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Xylenes, Total	ND	2.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Methyl tert-butyl ether (MTBE)	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,2,4-Trimethylbenzene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,3,5-Trimethylbenzene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,2-Dichloroethane (EDC)	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,2-Dibromoethane (EDB)	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Naphthalene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1-Methylnaphthalene	ND	4.02		µg/Kg-dry	1	7/20/2012 12:53:16 PM
2-Methylnaphthalene	ND	4.02		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Acetone	ND	10.1		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Bromobenzene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Bromodichloromethane	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Bromoform	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
2-Butanone	ND	2.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Carbon tetrachloride	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Chlorobenzene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Chloroethane	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Chloroform	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-1 (48-50')
Project: SWMU NO.14
Collection Date: 7/18/2012 1:45:00 PM
Lab ID: 1207900-006 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
2-Chlorotoluene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Carbon disulfide	ND	2.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
4-Chlorotoluene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
cis-1,2-DCE	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
cis-1,3-Dichloropropene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,2-Dibromo-3-chloropropane	ND	2.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Dibromochloromethane	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Dibromomethane	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,2-Dichlorobenzene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,3-Dichlorobenzene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,4-Dichlorobenzene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Dichlorodifluoromethane	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,1-Dichloroethane	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,1-Dichloroethene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,2-Dichloropropane	ND	2.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,3-Dichloropropane	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
2,2-Dichloropropane	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,1-Dichloropropene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Hexachlorobutadiene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Isopropylbenzene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
4-Isopropyltoluene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Methylene chloride	ND	2.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
n-Butylbenzene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
2-Hexanone	ND	2.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
n-Propylbenzene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
sec-Butylbenzene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Styrene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
4-Methyl-2-pentanone	ND	2.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
tert-Butylbenzene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,1,1,2-Tetrachloroethane	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,1,2,2-Tetrachloroethane	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Tetrachloroethene (PCE)	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
trans-1,2-DCE	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
trans-1,3-Dichloropropene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,2,3-Trichlorobenzene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,2,4-Trichlorobenzene	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,1,1-Trichloroethane	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,1,2-Trichloroethane	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Trichloroethene (TCE)	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Trichlorofluoromethane	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
1,2,3-Trichloropropane	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-006 **Matrix:** SOIL

Client Sample ID: SWMU 14-1 (48-50')
Collection Date: 7/18/2012 1:45:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	1.01		µg/Kg-dry	1	7/20/2012 12:53:16 PM
Surr: 1,2-Dichloroethane-d4	91.6	70-130		%REC	1	7/20/2012 12:53:16 PM
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	1	7/20/2012 12:53:16 PM
Surr: Dibromofluoromethane	88.1	70-130		%REC	1	7/20/2012 12:53:16 PM
Surr: Toluene-d8	106	70-130		%REC	1	7/20/2012 12:53:16 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-007 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-3 GW
Collection Date: 7/18/2012 10:45:00 AM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	83	10		mg/L	10	7/22/2012 6:16:57 PM
Motor Oil Range Organics (MRO)	ND	50		mg/L	10	7/22/2012 6:16:57 PM
Surr: DNOP	0	79.5-166	S	%REC	10	7/22/2012 6:16:57 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1.5	0.25		mg/L	5	7/25/2012 12:33:18 PM
Surr: BFB	121	69.8-119	S	%REC	5	7/25/2012 12:33:18 PM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	2.8	0.020	*	mg/L	10	8/20/2012 1:39:05 PM
Beryllium	0.042	0.020	*	mg/L	10	8/20/2012 1:39:05 PM
Cadmium	ND	0.020		mg/L	10	8/20/2012 1:39:05 PM
Chromium	0.38	0.060	*	mg/L	10	8/20/2012 1:39:05 PM
Cobalt	0.12	0.060		mg/L	10	8/20/2012 1:39:05 PM
Iron	120	10	*	mg/L	500	8/20/2012 1:45:48 PM
Manganese	45	0.20	*	mg/L	100	8/20/2012 1:42:17 PM
Nickel	0.18	0.10	*	mg/L	10	8/20/2012 1:39:05 PM
Silver	ND	0.050		mg/L	10	8/20/2012 1:39:05 PM
Vanadium	0.52	0.50		mg/L	10	8/20/2012 1:39:05 PM
Zinc	1.1	0.10		mg/L	10	8/20/2012 1:39:05 PM
EPA 200.8: METALS						Analyst: **SNV**
Antimony	ND	0.0025		mg/L	2.5	7/30/2012 7:13:25 PM
Arsenic	0.024	0.0025	*	mg/L	2.5	7/30/2012 7:13:25 PM
Lead	0.19	0.0050	*	mg/L	5	7/31/2012 12:35:17 PM
Selenium	0.0096	0.0025		mg/L	2.5	7/31/2012 12:31:20 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	7/24/2012 10:38:23 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Acenaphthylene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Aniline	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Anthracene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Azobenzene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Benz(a)anthracene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Benzo(a)pyrene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Benzoic acid	ND	20		µg/L	1	7/24/2012 4:50:25 PM
Benzyl alcohol	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/24/2012 4:50:25 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-007 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-3 GW
Collection Date: 7/18/2012 10:45:00 AM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/24/2012 4:50:25 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Butyl benzyl phthalate	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Carbazole	ND	10		µg/L	1	7/24/2012 4:50:25 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/24/2012 4:50:25 PM
4-Chloroaniline	ND	10		µg/L	1	7/24/2012 4:50:25 PM
2-Chloronaphthalene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
2-Chlorophenol	ND	10		µg/L	1	7/24/2012 4:50:25 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Chrysene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Di-n-butyl phthalate	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Di-n-octyl phthalate	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Dibenzofuran	ND	10		µg/L	1	7/24/2012 4:50:25 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Diethyl phthalate	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Dimethyl phthalate	ND	10		µg/L	1	7/24/2012 4:50:25 PM
2,4-Dichlorophenol	ND	20		µg/L	1	7/24/2012 4:50:25 PM
2,4-Dimethylphenol	34	10		µg/L	1	7/24/2012 4:50:25 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/24/2012 4:50:25 PM
2,4-Dinitrophenol	ND	20		µg/L	1	7/24/2012 4:50:25 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Fluoranthene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Fluorene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Hexachlorobenzene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Hexachlorobutadiene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Hexachloroethane	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Isophorone	ND	10		µg/L	1	7/24/2012 4:50:25 PM
1-Methylnaphthalene	140	10		µg/L	1	7/24/2012 4:50:25 PM
2-Methylnaphthalene	77	10		µg/L	1	7/24/2012 4:50:25 PM
2-Methylphenol	ND	10		µg/L	1	7/24/2012 4:50:25 PM
3+4-Methylphenol	ND	10		µg/L	1	7/24/2012 4:50:25 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/24/2012 4:50:25 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/24/2012 4:50:25 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-007 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-3 GW
Collection Date: 7/18/2012 10:45:00 AM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Naphthalene	24	10		µg/L	1	7/24/2012 4:50:25 PM
2-Nitroaniline	ND	10		µg/L	1	7/24/2012 4:50:25 PM
3-Nitroaniline	ND	10		µg/L	1	7/24/2012 4:50:25 PM
4-Nitroaniline	ND	20		µg/L	1	7/24/2012 4:50:25 PM
Nitrobenzene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
2-Nitrophenol	ND	10		µg/L	1	7/24/2012 4:50:25 PM
4-Nitrophenol	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Pentachlorophenol	ND	20		µg/L	1	7/24/2012 4:50:25 PM
Phenanthrene	20	10		µg/L	1	7/24/2012 4:50:25 PM
Phenol	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Pyrene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Pyridine	ND	10		µg/L	1	7/24/2012 4:50:25 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/24/2012 4:50:25 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/24/2012 4:50:25 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/24/2012 4:50:25 PM
Surr: 2,4,6-Tribromophenol	68.1	44.2-126		%REC	1	7/24/2012 4:50:25 PM
Surr: 2-Fluorobiphenyl	74.1	37-114		%REC	1	7/24/2012 4:50:25 PM
Surr: 2-Fluorophenol	56.3	23.4-98		%REC	1	7/24/2012 4:50:25 PM
Surr: 4-Terphenyl-d14	59.4	41.3-116		%REC	1	7/24/2012 4:50:25 PM
Surr: Nitrobenzene-d5	81.2	39.5-118		%REC	1	7/24/2012 4:50:25 PM
Surr: Phenol-d5	42.4	20.9-95.9		%REC	1	7/24/2012 4:50:25 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	97	5.0		µg/L	5	7/25/2012 5:05:57 PM
Toluene	13	5.0		µg/L	5	7/25/2012 5:05:57 PM
Ethylbenzene	54	5.0		µg/L	5	7/25/2012 5:05:57 PM
Methyl tert-butyl ether (MTBE)	250	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,2,4-Trimethylbenzene	82	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,3,5-Trimethylbenzene	5.7	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
Naphthalene	45	10		µg/L	5	7/25/2012 5:05:57 PM
1-Methylnaphthalene	170	20		µg/L	5	7/25/2012 5:05:57 PM
2-Methylnaphthalene	110	20		µg/L	5	7/25/2012 5:05:57 PM
Acetone	ND	50		µg/L	5	7/25/2012 5:05:57 PM
Bromobenzene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
Bromodichloromethane	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
Bromoform	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
Bromomethane	ND	15		µg/L	5	7/25/2012 5:05:57 PM
2-Butanone	ND	50		µg/L	5	7/25/2012 5:05:57 PM
Carbon disulfide	ND	50		µg/L	5	7/25/2012 5:05:57 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-3 GW
Project: SWMU NO.14
Collection Date: 7/18/2012 10:45:00 AM
Lab ID: 1207900-007
Matrix: AQUEOUS
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Carbon Tetrachloride	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
Chlorobenzene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
Chloroethane	ND	10		µg/L	5	7/25/2012 5:05:57 PM
Chloroform	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
Chloromethane	ND	15		µg/L	5	7/25/2012 5:05:57 PM
2-Chlorotoluene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
4-Chlorotoluene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
cis-1,2-DCE	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	7/25/2012 5:05:57 PM
Dibromochloromethane	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
Dibromomethane	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
Dichlorodifluoromethane	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,1-Dichloroethane	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,1-Dichloroethene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,2-Dichloropropane	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
2,2-Dichloropropane	ND	10		µg/L	5	7/25/2012 5:05:57 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
Hexachlorobutadiene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
2-Hexanone	ND	50		µg/L	5	7/25/2012 5:05:57 PM
Isopropylbenzene	8.1	5.0		µg/L	5	7/25/2012 5:05:57 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	7/25/2012 5:05:57 PM
Methylene Chloride	ND	15		µg/L	5	7/25/2012 5:05:57 PM
n-Butylbenzene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
n-Propylbenzene	12	5.0		µg/L	5	7/25/2012 5:05:57 PM
sec-Butylbenzene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
Styrene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
tert-Butylbenzene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	7/25/2012 5:05:57 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
trans-1,2-DCE	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-3 GW
Project: SWMU NO.14
Collection Date: 7/18/2012 10:45:00 AM
Lab ID: 1207900-007
Matrix: AQUEOUS
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Trichloroethene (TCE)	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
Trichlorofluoromethane	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	7/25/2012 5:05:57 PM
Vinyl chloride	ND	5.0		µg/L	5	7/25/2012 5:05:57 PM
Xylenes, Total	44	7.5		µg/L	5	7/25/2012 5:05:57 PM
Surr: 1,2-Dichloroethane-d4	99.4	70-130		%REC	5	7/25/2012 5:05:57 PM
Surr: 4-Bromofluorobenzene	91.2	70-130		%REC	5	7/25/2012 5:05:57 PM
Surr: Dibromofluoromethane	122	70-130		%REC	5	7/25/2012 5:05:57 PM
Surr: Toluene-d8	107	70-130		%REC	5	7/25/2012 5:05:57 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-008 **Matrix:** AQUEOUS

Client Sample ID: FB071812
Collection Date: 7/18/2012 1:15:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/21/2012 3:14:28 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/21/2012 3:14:28 PM
Surr: DNOP	137	79.5-166		%REC	1	7/21/2012 3:14:28 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/25/2012 12:08:08 AM
Surr: BFB	112	69.8-119		%REC	1	7/25/2012 12:08:08 AM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	ND	0.0020		mg/L	1	8/17/2012 12:12:31 PM
Beryllium	ND	0.0020		mg/L	1	8/17/2012 12:12:31 PM
Cadmium	ND	0.0020		mg/L	1	8/17/2012 12:12:31 PM
Chromium	ND	0.0060		mg/L	1	8/17/2012 12:12:31 PM
Cobalt	ND	0.0060		mg/L	1	8/17/2012 12:12:31 PM
Iron	ND	0.020		mg/L	1	8/17/2012 12:12:31 PM
Manganese	ND	0.0020		mg/L	1	8/17/2012 12:12:31 PM
Nickel	ND	0.010		mg/L	1	8/17/2012 12:12:31 PM
Silver	ND	0.0050		mg/L	1	8/17/2012 12:12:31 PM
Vanadium	ND	0.050		mg/L	1	8/17/2012 12:12:31 PM
Zinc	ND	0.010		mg/L	1	8/20/2012 1:49:17 PM
EPA 200.8: METALS						Analyst: **SNV**
Antimony	ND	0.0010		mg/L	1	7/31/2012 6:32:29 PM
Arsenic	ND	0.0010		mg/L	1	7/31/2012 6:32:29 PM
Lead	ND	0.0010		mg/L	1	7/31/2012 6:32:29 PM
Selenium	ND	0.0010		mg/L	1	7/31/2012 6:32:29 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	7/24/2012 10:40:09 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Acenaphthylene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Aniline	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Anthracene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Azobenzene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Benz(a)anthracene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Benzo(a)pyrene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Benzo(b)fluoranthene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Benzo(k)fluoranthene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Benzoic acid	ND	20		µg/L	1	7/25/2012 11:46:55 AM
Benzyl alcohol	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/25/2012 11:46:55 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-008 **Matrix:** AQUEOUS

Client Sample ID: FB071812
Collection Date: 7/18/2012 1:15:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/25/2012 11:46:55 AM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Butyl benzyl phthalate	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Carbazole	ND	10		µg/L	1	7/25/2012 11:46:55 AM
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/25/2012 11:46:55 AM
4-Chloroaniline	ND	10		µg/L	1	7/25/2012 11:46:55 AM
2-Chloronaphthalene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
2-Chlorophenol	ND	10		µg/L	1	7/25/2012 11:46:55 AM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Chrysene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Di-n-butyl phthalate	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Di-n-octyl phthalate	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Dibenzofuran	ND	10		µg/L	1	7/25/2012 11:46:55 AM
1,2-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
1,3-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
1,4-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Diethyl phthalate	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Dimethyl phthalate	ND	10		µg/L	1	7/25/2012 11:46:55 AM
2,4-Dichlorophenol	ND	20		µg/L	1	7/25/2012 11:46:55 AM
2,4-Dimethylphenol	ND	10		µg/L	1	7/25/2012 11:46:55 AM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/25/2012 11:46:55 AM
2,4-Dinitrophenol	ND	20		µg/L	1	7/25/2012 11:46:55 AM
2,4-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
2,6-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Fluoranthene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Fluorene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Hexachlorobenzene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Hexachlorobutadiene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Hexachloroethane	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Isophorone	ND	10		µg/L	1	7/25/2012 11:46:55 AM
1-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
2-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
2-Methylphenol	ND	10		µg/L	1	7/25/2012 11:46:55 AM
3+4-Methylphenol	ND	10		µg/L	1	7/25/2012 11:46:55 AM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/25/2012 11:46:55 AM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/25/2012 11:46:55 AM

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- H Holding times for preparation or analysis exceeded
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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207900-008
Matrix: AQUEOUS
Client Sample ID: FB071812
Collection Date: 7/18/2012 1:15:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Naphthalene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
2-Nitroaniline	ND	10		µg/L	1	7/25/2012 11:46:55 AM
3-Nitroaniline	ND	10		µg/L	1	7/25/2012 11:46:55 AM
4-Nitroaniline	ND	20		µg/L	1	7/25/2012 11:46:55 AM
Nitrobenzene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
2-Nitrophenol	ND	10		µg/L	1	7/25/2012 11:46:55 AM
4-Nitrophenol	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Pentachlorophenol	ND	20		µg/L	1	7/25/2012 11:46:55 AM
Phenanthrene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Phenol	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Pyrene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Pyridine	ND	10		µg/L	1	7/25/2012 11:46:55 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/25/2012 11:46:55 AM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/25/2012 11:46:55 AM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/25/2012 11:46:55 AM
Surr: 2,4,6-Tribromophenol	89.5	44.2-126		%REC	1	7/25/2012 11:46:55 AM
Surr: 2-Fluorobiphenyl	72.2	37-114		%REC	1	7/25/2012 11:46:55 AM
Surr: 2-Fluorophenol	58.5	23.4-98		%REC	1	7/25/2012 11:46:55 AM
Surr: 4-Terphenyl-d14	79.6	41.3-116		%REC	1	7/25/2012 11:46:55 AM
Surr: Nitrobenzene-d5	69.3	39.5-118		%REC	1	7/25/2012 11:46:55 AM
Surr: Phenol-d5	43.5	20.9-95.9		%REC	1	7/25/2012 11:46:55 AM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
Toluene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
Ethylbenzene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
Naphthalene	ND	2.0		µg/L	1	7/23/2012 7:12:30 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/23/2012 7:12:30 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/23/2012 7:12:30 PM
Acetone	ND	10		µg/L	1	7/23/2012 7:12:30 PM
Bromobenzene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
Bromoform	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
Bromomethane	ND	3.0		µg/L	1	7/23/2012 7:12:30 PM
2-Butanone	ND	10		µg/L	1	7/23/2012 7:12:30 PM
Carbon disulfide	ND	10		µg/L	1	7/23/2012 7:12:30 PM

Qualifiers:

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB071812
Project: SWMU NO.14
Collection Date: 7/18/2012 1:15:00 PM
Lab ID: 1207900-008
Matrix: AQUEOUS
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Carbon Tetrachloride	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
Chlorobenzene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
Chloroethane	ND	2.0		µg/L	1	7/23/2012 7:12:30 PM
Chloroform	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
Chloromethane	ND	3.0		µg/L	1	7/23/2012 7:12:30 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/23/2012 7:12:30 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
Dibromomethane	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/23/2012 7:12:30 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
2-Hexanone	ND	10		µg/L	1	7/23/2012 7:12:30 PM
Isopropylbenzene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/23/2012 7:12:30 PM
Methylene Chloride	ND	3.0		µg/L	1	7/23/2012 7:12:30 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
Styrene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/23/2012 7:12:30 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM

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- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
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- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB071812
Project: SWMU NO.14
Collection Date: 7/18/2012 1:15:00 PM
Lab ID: 1207900-008
Matrix: AQUEOUS
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/23/2012 7:12:30 PM
Vinyl chloride	ND	1.0		µg/L	1	7/23/2012 7:12:30 PM
Xylenes, Total	ND	1.5		µg/L	1	7/23/2012 7:12:30 PM
Surr: 1,2-Dichloroethane-d4	88.9	70-130		%REC	1	7/23/2012 7:12:30 PM
Surr: 4-Bromofluorobenzene	98.3	70-130		%REC	1	7/23/2012 7:12:30 PM
Surr: Dibromofluoromethane	118	70-130		%REC	1	7/23/2012 7:12:30 PM
Surr: Toluene-d8	102	70-130		%REC	1	7/23/2012 7:12:30 PM

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: SWMU NO.14
Collection Date:
Lab ID: 1207900-009
Matrix: TRIP BLANK
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
Toluene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
Ethylbenzene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
Naphthalene	ND	2.0		µg/L	1	7/23/2012 8:12:02 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/23/2012 8:12:02 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/23/2012 8:12:02 PM
Acetone	ND	10		µg/L	1	7/23/2012 8:12:02 PM
Bromobenzene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
Bromoform	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
Bromomethane	ND	3.0		µg/L	1	7/23/2012 8:12:02 PM
2-Butanone	ND	10		µg/L	1	7/23/2012 8:12:02 PM
Carbon disulfide	ND	10		µg/L	1	7/23/2012 8:12:02 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
Chlorobenzene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
Chloroethane	ND	2.0		µg/L	1	7/23/2012 8:12:02 PM
Chloroform	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
Chloromethane	ND	3.0		µg/L	1	7/23/2012 8:12:02 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/23/2012 8:12:02 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
Dibromomethane	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/23/2012 8:12:02 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
2-Hexanone	ND	10		µg/L	1	7/23/2012 8:12:02 PM

Qualifiers:

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- B Analyte detected in the associated Method Blank
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- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: SWMU NO.14
Collection Date:
Lab ID: 1207900-009
Matrix: TRIP BLANK
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Isopropylbenzene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/23/2012 8:12:02 PM
Methylene Chloride	ND	3.0		µg/L	1	7/23/2012 8:12:02 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
Styrene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/23/2012 8:12:02 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/23/2012 8:12:02 PM
Vinyl chloride	ND	1.0		µg/L	1	7/23/2012 8:12:02 PM
Xylenes, Total	ND	1.5		µg/L	1	7/23/2012 8:12:02 PM
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	7/23/2012 8:12:02 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	7/23/2012 8:12:02 PM
Surr: Dibromofluoromethane	125	70-130		%REC	1	7/23/2012 8:12:02 PM
Surr: Toluene-d8	99.2	70-130		%REC	1	7/23/2012 8:12:02 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MEOH BLANK
Project: SWMU NO.14
Collection Date:
Lab ID: 1207900-010
Matrix: MEOH BLAN
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/25/2012 7:38:36 PM
Surr: BFB	99.2	84-116		%REC	1	7/25/2012 7:38:36 PM
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Benzene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
Toluene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
Naphthalene	ND	0.10		mg/Kg	1	7/25/2012 3:54:46 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/25/2012 3:54:46 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/25/2012 3:54:46 PM
Acetone	ND	0.75		mg/Kg	1	7/25/2012 3:54:46 PM
Bromobenzene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
Bromoform	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
Bromomethane	ND	0.15		mg/Kg	1	7/25/2012 3:54:46 PM
2-Butanone	ND	0.50		mg/Kg	1	7/25/2012 3:54:46 PM
Carbon disulfide	ND	0.50		mg/Kg	1	7/25/2012 3:54:46 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	7/25/2012 3:54:46 PM
Chlorobenzene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
Chloroethane	ND	0.10		mg/Kg	1	7/25/2012 3:54:46 PM
Chloroform	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
Chloromethane	ND	0.15		mg/Kg	1	7/25/2012 3:54:46 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	7/25/2012 3:54:46 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
Dibromomethane	ND	0.10		mg/Kg	1	7/25/2012 3:54:46 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	7/25/2012 3:54:46 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MEOH BLANK
Project: SWMU NO.14
Collection Date:
Lab ID: 1207900-010
Matrix: MEOH BLAN
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
2,2-Dichloropropane	ND	0.10		mg/Kg	1	7/25/2012 3:54:46 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	7/25/2012 3:54:46 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	7/25/2012 3:54:46 PM
2-Hexanone	ND	0.50		mg/Kg	1	7/25/2012 3:54:46 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	7/25/2012 3:54:46 PM
Methylene chloride	ND	0.15		mg/Kg	1	7/25/2012 3:54:46 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
Styrene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	7/25/2012 3:54:46 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	7/25/2012 3:54:46 PM
Vinyl chloride	ND	0.050		mg/Kg	1	7/25/2012 3:54:46 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/25/2012 3:54:46 PM
Surr: 1,2-Dichloroethane-d4	97.5	70-130		%REC	1	7/25/2012 3:54:46 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	7/25/2012 3:54:46 PM
Surr: Dibromofluoromethane	109	70-130		%REC	1	7/25/2012 3:54:46 PM
Surr: Toluene-d8	97.2	70-130		%REC	1	7/25/2012 3:54:46 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120724057
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1207900
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120724057-001	**Sampling Date**	7/18/2012	**Date/Time Received**	7/24/2012	12:50 PM	
Client Sample ID	1207900-001D / SWMU 14-3 (0-0.5')	**Sampling Time**	11:25 AM				
Matrix	Soil						
Comments							

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.479	7/31/2012	CRW	EPA 335.4	
%moisture	5.6	Percent		7/31/2012	CRW	%moisture	

Sample Number	120724057-002	**Sampling Date**	7/18/2012	**Date/Time Received**	7/24/2012	12:50 PM	
Client Sample ID	1207900-002D / SWMU 14-3 (1.5-2')	**Sampling Time**	12:00 PM				
Matrix	Soil						
Comments							

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	1.77	mg/Kg	0.565	7/31/2012	CRW	EPA 335.4	
%moisture	13.3	Percent		7/31/2012	CRW	%moisture	

Sample Number	120724057-003	**Sampling Date**	7/18/2012	**Date/Time Received**	7/24/2012	12:50 PM	
Client Sample ID	1207900-003D / SWMU 14-3 (8-10')	**Sampling Time**	12:15 PM				
Matrix	Soil						
Comments							

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.567	7/31/2012	CRW	EPA 335.4	M2
%moisture	16.7	Percent		7/31/2012	CRW	%moisture	

Anatek Labs, Inc.

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 120724057
Project Name: 1207900

Analytical Results Report

Sample Number	120724057-004	**Sampling Date**	7/18/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207900-004D / SWMU 14-3 (12-14')	**Sampling Time**	12:30 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.604	7/31/2012	CRW	EPA 335.4	M2
%moisture	17.5	Percent		7/31/2012	CRW	%moisture	

Sample Number	120724057-005	**Sampling Date**	7/18/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207900-005D / SWMU 14-3 (25.5-26')	**Sampling Time**	12:45 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.55	7/31/2012	CRW	EPA 335.4	M2
%moisture	10.2	Percent		7/31/2012	CRW	%moisture	

Sample Number	120724057-006	**Sampling Date**	7/18/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207900-006D / SWMU 14-1 (48-50')	**Sampling Time**	1:45 PM		
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.569	7/31/2012	CRW	EPA 335.4	M2
%moisture	11.6	Percent		7/31/2012	CRW	%moisture	

Anatek Labs, Inc.

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120724057
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1207900
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120724057-007	**Sampling Date**	7/18/2012	**Date/Time Received**	7/24/2012	12:50 PM
Client Sample ID	1207900-008F / FB071812	**Sampling Time**	1:15 PM			
Matrix	Water					
Comments						

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	7/31/2012	CRW	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

M2	Matrix spike recovery was low; the associated blank spike recovery was acceptable. Potential matrix effect
MCL	EPA's Maximum Contaminant Level
ND	Not Detected
PQL	Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R4938**	RunNo: **4938**
Prep Date:	Analysis Date: **8/17/2012**	SeqNo: **139688** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R4938**	RunNo: **4938**
Prep Date:	Analysis Date: **8/17/2012**	SeqNo: **139689** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.0005000	98.2	85	115			
Beryllium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.3	85	115			
Chromium	0.49	0.0060	0.5000	0	97.7	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.6	85	115			
Iron	0.48	0.020	0.5000	0	96.8	85	115			
Manganese	0.48	0.0020	0.5000	0	95.4	85	115			
Nickel	0.46	0.010	0.5000	0	92.5	85	115			
Silver	0.097	0.0050	0.1000	0	96.9	85	115			
Vanadium	0.50	0.050	0.5000	0	101	85	115			

Sample ID **1207807-002BMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R4938**	RunNo: **4938**
Prep Date:	Analysis Date: **8/17/2012**	SeqNo: **139709** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.60	0.0020	0.5000	0.08916	102	70	130			

Sample ID **1207807-002BMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Metals**
Client ID: **BatchQC**	Batch ID: **R4938**	RunNo: **4938**
Prep Date:	Analysis Date: **8/17/2012**	SeqNo: **139710** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.59	0.0020	0.5000	0.08916	99.9	70	130	1.42	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

ıt: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Metals					
Client ID:	PBW	Batch ID:	R4970	RunNo:	4970					
Prep Date:		Analysis Date:	8/20/2012	SeqNo:	140607	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Metals					
Client ID:	LCSW	Batch ID:	R4970	RunNo:	4970					
Prep Date:		Analysis Date:	8/20/2012	SeqNo:	140608	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.48	0.010	0.5000	0	95.6	85	115			

Sample ID	1207B81-004AMS	SampType:	MS	TestCode:	EPA Method 200.7: Metals					
Client ID:	BatchQC	Batch ID:	R4970	RunNo:	4970					
Prep Date:		Analysis Date:	8/20/2012	SeqNo:	140624	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.47	0.010	0.5000	0.009760	92.7	70	130			

Sample ID	1207B81-004AMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Metals					
Client ID:	BatchQC	Batch ID:	R4970	RunNo:	4970					
Prep Date:		Analysis Date:	8/20/2012	SeqNo:	140625	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.47	0.010	0.5000	0.009760	92.2	70	130	0.517	20	

Sample ID	MB-3063	SampType:	MBLK	TestCode:	EPA Method 200.7: Metals					
Client ID:	PBW	Batch ID:	3063	RunNo:	4970					
Prep Date:	7/27/2012	Analysis Date:	8/20/2012	SeqNo:	141512	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

ıfiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **LCS-3063** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**

Client ID: **LCSW** Batch ID: **3063** RunNo: **4970**

Prep Date: **7/27/2012** Analysis Date: **8/20/2012** SeqNo: **141513** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.0	85	115			
Beryllium	0.51	0.0020	0.5000	0	103	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.6	85	115			
Chromium	0.49	0.0060	0.5000	0	97.6	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.0	85	115			
Manganese	0.48	0.0020	0.5000	0	96.7	85	115			
Nickel	0.47	0.010	0.5000	0	94.3	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Vanadium	0.50	0.050	0.5000	0	101	85	115			
Zinc	0.48	0.010	0.5000	0	96.1	85	115			

Sample ID **MB-3063** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**

Client ID: **PBW** Batch ID: **3063** RunNo: **4970**

Prep Date: **7/27/2012** Analysis Date: **8/20/2012** SeqNo: **141514** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								

Sample ID **LCS-3063** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**

Client ID: **LCSW** Batch ID: **3063** RunNo: **4970**

Prep Date: **7/27/2012** Analysis Date: **8/20/2012** SeqNo: **141515** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.51	0.020	0.5000	0	101	85	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
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- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-3063	SampType:	MBLK	TestCode:	EPA 200.8: Metals				
Client ID:	PBW	Batch ID:	3063	RunNo:	4564				
Prep Date:	7/27/2012	Analysis Date:	7/31/2012	SeqNo:	128125	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0025								
Arsenic	ND	0.0025								
Lead	ND	0.0025								
Selenium	ND	0.0025								

Sample ID	1207508-003AMS	SampType:	MS	TestCode:	EPA 200.8: Metals				
Client ID:	BatchQC	Batch ID:	R4578	RunNo:	4578				
Prep Date:		Analysis Date:	7/31/2012	SeqNo:	128501	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.033	0.0010	0.02500	0.008736	97.7	70	130			

Sample ID	1207608-004AMS	SampType:	MS	TestCode:	EPA 200.8: Metals				
Client ID:	BatchQC	Batch ID:	R4578	RunNo:	4578				
Prep Date:		Analysis Date:	7/31/2012	SeqNo:	128507	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	101	70	130			
Arsenic	0.025	0.0010	0.02500	0	99.9	70	130			
Selenium	0.025	0.0010	0.02500	0	102	70	130			

Sample ID	1207806-004AMS	SampType:	MS	TestCode:	EPA 200.8: Metals				
Client ID:	BatchQC	Batch ID:	R4578	RunNo:	4578				
Prep Date:		Analysis Date:	7/31/2012	SeqNo:	128522	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	100	70	130			
Arsenic	0.025	0.0010	0.02500	0	100	70	130			
Selenium	0.029	0.0010	0.02500	0.004090	98.9	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Metals				
Client ID:	LCSW	Batch ID:	R4578	RunNo:	4578				
Prep Date:		Analysis Date:	7/31/2012	SeqNo:	128780	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	100	85	115			
Arsenic	0.026	0.0010	0.02500	0	104	85	115			
Lead	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.028	0.0010	0.02500	0	112	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R4578**	RunNo: **4578**
Prep Date:	Analysis Date: **7/31/2012**	SeqNo: **128781** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	101	85	115			
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Lead	0.025	0.0010	0.02500	0	100	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R4578**	RunNo: **4578**
Prep Date:	Analysis Date: **7/31/2012**	SeqNo: **128782** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R4578**	RunNo: **4578**
Prep Date:	Analysis Date: **7/31/2012**	SeqNo: **128784** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-2979	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury				
Client ID:	PBW	Batch ID:	2979	RunNo:	4384				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012	SeqNo:	122185	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-2979	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury				
Client ID:	LCSW	Batch ID:	2979	RunNo:	4384				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012	SeqNo:	122186	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.7	80	120			

Sample ID	1207546-001BMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury				
Client ID:	BatchQC	Batch ID:	2979	RunNo:	4384				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012	SeqNo:	122188	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0042	0.00020	0.005000	0	84.4	75	125			

Sample ID	1207546-001BMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury				
Client ID:	BatchQC	Batch ID:	2979	RunNo:	4384				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012	SeqNo:	122191	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0040	0.00020	0.005000	0	79.7	75	125	5.66	20	

Qualifiers:

- **>** Value exceeds Maximum Contaminant Level.
- **E** Value above quantitation range
- **J** Analyte detected below quantitation limits
- **R** RPD outside accepted recovery limits
- **B** Analyte detected in the associated Method Blank
- **H** Holding times for preparation or analysis exceeded
- **ND** Not Detected at the Reporting Limit
- **RL** Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB-2936**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **2936**	RunNo: **4208**
Prep Date: **7/20/2012**	Analysis Date: **7/21/2012**	SeqNo: **120444** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		117	77.6	140			

Sample ID **LCS-2936**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **2936**	RunNo: **4208**
Prep Date: **7/20/2012**	Analysis Date: **7/21/2012**	SeqNo: **120445** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	10	50.00	0	74.5	52.6	130			
Surr: DNOP	4.6		5.000		91.7	77.6	140			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB-2935**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **2935**	RunNo: **4172**
Prep Date: **7/20/2012**	Analysis Date: **7/20/2012**	SeqNo: **120217** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		125	79.5	166			

Sample ID **LCS-2935**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **2935**	RunNo: **4172**
Prep Date: **7/20/2012**	Analysis Date: **7/20/2012**	SeqNo: **120243** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.7	1.0	5.000	0	94.0	74	157			
Surr: DNOP	0.50		0.5000		99.4	79.5	166			

Sample ID **LCSD-2935**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **2935**	RunNo: **4172**
Prep Date: **7/20/2012**	Analysis Date: **7/20/2012**	SeqNo: **120288** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
D[illegible] Range Organics (DRO)	4.7	1.0	5.000	0	93.2	74	157	0.819	23	
DNOP	0.50		0.5000		101	79.5	166	0	0	

[illegible]fiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207900

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID 5ML RB	SampType: MBLK	TestCode: EPA Method 8015B: Gasoline Range							
Client ID: PBS	Batch ID: R4415	RunNo: 4415							
Prep Date:	Analysis Date: 7/25/2012	SeqNo: 123776	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	990		1000		98.5	84	116			

Sample ID 2.5UG GRO LCSB	SampType: LCS	TestCode: EPA Method 8015B: Gasoline Range							
Client ID: LCSS	Batch ID: R4415	RunNo: 4415							
Prep Date:	Analysis Date: 7/25/2012	SeqNo: 123777	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	85	115			
Surr: BFB	1000		1000		103	84	116			

Sample ID 1207A80-001AMS	SampType: MS	TestCode: EPA Method 8015B: Gasoline Range							
Client ID: BatchQC	Batch ID: R4415	RunNo: 4415							
Prep Date:	Analysis Date: 7/25/2012	SeqNo: 123779	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	89	25	93.31	0	95.2	70	130			
Surr: BFB	3800		3732		103	84	116			

Sample ID 1207A80-001AMSD	SampType: MSD	TestCode: EPA Method 8015B: Gasoline Range							
Client ID: BatchQC	Batch ID: R4415	RunNo: 4415							
Prep Date:	Analysis Date: 7/25/2012	SeqNo: 123780	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	89	25	93.31	0	95.1	70	130	0.168	22.1	
Surr: BFB	3900		3732		104	84	116	0	0	

Qualifiers:

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- ND Not Detected at the Reporting Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

t: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122827** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		88.5	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122828** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	101	75.9	119			
Surr: BFB	21		20.00		103	69.8	119			

Sample ID **1207819-004AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122835** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.7	0.25	2.500	2.307	94.7	75.4	121			
Surr: BFB	100		100.0		103	69.8	119			

Sample ID **1207819-004AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122836** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.1	0.25	2.500	2.307	71.5	75.4	121	13.2	10.5	SR
Surr: BFB	96		100.0		96.5	69.8	119	0	0	

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R4435**	RunNo: **4435**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **123768** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		86.4	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R4435**	RunNo: **4435**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **123769** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	99.0	75.9	119			
Surr: BFB	18		20.00		90.7	69.8	119			

fiers:

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- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **b5**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121267** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								

Qualifiers:

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **b5**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121267** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.050								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
[illegible]richloroethane	ND	0.050								
[illegible]-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.1	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		107	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		89.1	70	130			
Surr: Toluene-d8	0.53		0.5000		105	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121268** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	107	70.7	123			
Toluene	1.1	0.050	1.000	0	107	80	120			
Chlorobenzene	1.0	0.050	1.000	0	102	70	130			
1,1-Dichloroethene	0.99	0.050	1.000	0	99.0	63.1	148			
Trichloroethene (TCE)	0.89	0.050	1.000	0	88.8	63.2	114			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.1	70	130			
Surr: 4-Bromofluorobenzene	0.60		0.5000		121	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121268** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.45		0.5000		89.3	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID **1207900-002b ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **SWMU 14-3 (1.5-2')**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121269** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.70	0.050	0.6439	0.006767	108	81.3	119			
Toluene	0.65	0.050	0.6439	0	100	75	121			
Chlorobenzene	0.64	0.050	0.6439	0	99.6	78.5	120			
1,1-Dichloroethene	0.68	0.050	0.6439	0	106	75.3	115			
Trichloroethene (TCE)	0.61	0.050	0.6439	0	94.7	67.8	119			
Surr: 1,2-Dichloroethane-d4	0.31		0.3220		97.6	70	130			
Surr: 4-Bromofluorobenzene	0.32		0.3220		97.9	70	130			
Surr: Dibromofluoromethane	0.32		0.3220		98.8	70	130			
Surr: Toluene-d8	0.32		0.3220		101	70	130			

Sample ID **1207900-002b msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **SWMU 14-3 (1.5-2')**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121270** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.67	0.050	0.6439	0.006767	103	81.3	119	4.25	15.7	
Toluene	0.63	0.050	0.6439	0	98.3	75	121	2.14	16.2	
Chlorobenzene	0.65	0.050	0.6439	0	101	78.5	120	1.27	14.9	
1,1-Dichloroethene	0.60	0.050	0.6439	0	93.7	75.3	115	12.0	31.8	
Trichloroethene (TCE)	0.55	0.050	0.6439	0	85.7	67.8	119	10.0	16.5	
Surr: 1,2-Dichloroethane-d4	0.31		0.3220		95.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.31		0.3220		97.7	70	130	0	0	
Surr: Dibromofluoromethane	0.30		0.3220		92.3	70	130	0	0	
Surr: Toluene-d8	0.32		0.3220		100	70	130	0	0	

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122014** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122014** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
‹form	ND	0.050								
C‹‹‹omethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								

'ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122014** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.050								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.6	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.53		0.5000		105	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122015** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	105	70.7	123			
Toluene	0.96	0.050	1.000	0	95.5	80	120			
Chlorobenzene	0.98	0.050	1.000	0	97.9	70	130			
1,1-Dichloroethene	0.93	0.050	1.000	0	92.5	63.1	148			
Trichloroethene (TCE)	0.88	0.050	1.000	0	88.4	63.2	114			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.5	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		103	70	130			
Surr: Toluene-d8	0.49		0.5000		97.5	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	1207940-007b ms	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R4379	RunNo:	4379					
Prep Date:		Analysis Date:	7/24/2012	SeqNo:	122016	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	44	2.5	42.92	2.856	95.9	81.3	119			
Toluene	56	2.5	42.92	14.08	97.1	75	121			
Chlorobenzene	42	2.5	42.92	0	97.1	78.5	120			
1,1-Dichloroethene	39	2.5	42.92	0	91.6	75.3	115			
Trichloroethene (TCE)	37	2.5	42.92	0	85.1	67.8	119			
Surr: 1,2-Dichloroethane-d4	20		21.46		92.0	70	130			
Surr: 4-Bromofluorobenzene	20		21.46		93.8	70	130			
Surr: Dibromofluoromethane	22		21.46		101	70	130			
Surr: Toluene-d8	22		21.46		102	70	130			

Sample ID	1207940-007b msd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R4379	RunNo:	4379					
Prep Date:		Analysis Date:	7/24/2012	SeqNo:	122017	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	43	2.5	42.92	2.856	93.9	81.3	119	1.96	15.7	
Toluene	54	2.5	42.92	14.08	92.6	75	121	3.49	16.2	
Chlorobenzene	42	2.5	42.92	0	97.0	78.5	120	0.0484	14.9	
1,1-Dichloroethene	37	2.5	42.92	0	85.4	75.3	115	7.02	31.8	
Trichloroethene (TCE)	36	2.5	42.92	0	84.2	67.8	119	1.08	16.5	
Surr: 1,2-Dichloroethane-d4	20		21.46		94.1	70	130	0	0	
Surr: 4-Bromofluorobenzene	20		21.46		92.2	70	130	0	0	
Surr: Dibromofluoromethane	23		21.46		106	70	130	0	0	
Surr: Toluene-d8	21		21.46		99.9	70	130	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-2930**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **2930**	RunNo: **4215**
Prep Date: **7/20/2012**	Analysis Date: **7/20/2012**	SeqNo: **120455** Units: **µg/Kg-dry**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.00								
Toluene	ND	1.00								
Ethylbenzene	ND	1.00								
Xylenes, Total	ND	2.00								
Methyl tert-butyl ether (MTBE)	ND	1.00								
1,2,4-Trimethylbenzene	ND	1.00								
1,3,5-Trimethylbenzene	ND	1.00								
1,2-Dichloroethane (EDC)	ND	1.00								
1,2-Dibromoethane (EDB)	ND	1.00								
Naphthalene	ND	1.00								
1-Methylnaphthalene	ND	4.00								
2-Methylnaphthalene	ND	4.00								
Acetone	ND	10.0								
Bromobenzene	ND	1.00								
Bromodichloromethane	ND	1.00								
Bromoform	ND	1.00								
2-Butanone	ND	2.00								
Carbon tetrachloride	ND	1.00								
Chlorobenzene	ND	1.00								
Chloroethane	ND	1.00								
Chloroform	ND	1.00								
Chloromethane	ND	1.00								
2-Chlorotoluene	ND	1.00								
Carbon disulfide	ND	2.00								
4-Chlorotoluene	ND	1.00								
cis-1,2-DCE	ND	1.00								
cis-1,3-Dichloropropene	ND	1.00								
1,2-Dibromo-3-chloropropane	ND	2.00								
Dibromochloromethane	ND	1.00								
Dibromomethane	ND	1.00								
1,2-Dichlorobenzene	ND	1.00								
1,3-Dichlorobenzene	ND	1.00								
1,4-Dichlorobenzene	ND	1.00								
Dichlorodifluoromethane	ND	1.00								
1,1-Dichloroethane	ND	1.00								
1,1-Dichloroethene	ND	1.00								
1,2-Dichloropropane	ND	2.00								
1,3-Dichloropropane	ND	1.00								
2,2-Dichloropropane	ND	1.00								
1,1-Dichloropropene	ND	1.00								
Hexachlorobutadiene	ND	1.00								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **mb-2930**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **2930**	RunNo: **4215**
Prep Date: **7/20/2012**	Analysis Date: **7/20/2012**	SeqNo: **120455** Units: **µg/Kg-dry**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Isopropylbenzene	ND	1.00								
4-Isopropyltoluene	ND	1.00								
Methylene chloride	ND	2.00								
n-Butylbenzene	ND	1.00								
2-Hexanone	ND	2.00								
n-Propylbenzene	ND	1.00								
sec-Butylbenzene	ND	1.00								
Styrene	ND	1.00								
4-Methyl-2-pentanone	ND	2.00								
tert-Butylbenzene	ND	1.00								
1,1,1,2-Tetrachloroethane	ND	1.00								
1,1,2,2-Tetrachloroethane	ND	1.00								
Tetrachloroethene (PCE)	ND	1.00								
trans-1,2-DCE	ND	1.00								
trans-1,3-Dichloropropene	ND	1.00								
1,2,3-Trichlorobenzene	ND	1.00								
1,2,4-Trichlorobenzene	ND	1.00								
[illegible]richloroethane	ND	1.00								
[illegible]richloroethane	ND	1.00								
Trichloroethene (TCE)	ND	1.00								
Trichlorofluoromethane	ND	1.00								
1,2,3-Trichloropropane	ND	1.00								
Vinyl chloride	ND	1.00								
Surr: 1,2-Dichloroethane-d4	52.9		50.00		106	70	130			
Surr: 4-Bromofluorobenzene	48.7		50.00		97.4	70	130			
Surr: Dibromofluoromethane	46.6		50.00		93.2	70	130			
Surr: Toluene-d8	50.9		50.00		102	70	130			

Sample ID **lcs-2930**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **2930**	RunNo: **4215**
Prep Date: **7/20/2012**	Analysis Date: **7/20/2012**	SeqNo: **120456** Units: **µg/Kg-dry**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	11.0	1.00	10.00	0	110	60	140			
Toluene	10.6	1.00	10.00	0	106	60	140			
Chlorobenzene	10.9	1.00	10.00	0	109	60	140			
1,1-Dichloroethene	11.9	1.00	10.00	0	119	60	140			
Trichloroethene (TCE)	11.1	1.00	10.00	0	111	60	140			
Surr: 1,2-Dichloroethane-d4	51.8		50.00		104	70	130			
Surr: 4-Bromofluorobenzene	47.6		50.00		95.1	70	130			
Surr: Dibromofluoromethane	47.2		50.00		94.3	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	**lcs-2930**	SampType: **LCS**		TestCode: **Method 8260B/5035LOW: VOLATILES**					
Client ID:	**LCSS**	Batch ID: **2930**		RunNo: **4215**					
Prep Date:	**7/20/2012**	Analysis Date: **7/20/2012**		SeqNo: **120456**		Units: **µg/Kg-dry**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	49.8		50.00		99.7	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207900

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID 5ml-rb	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES
Client ID: PBW	Batch ID: R4233	RunNo: 4233
Prep Date:	Analysis Date: 7/20/2012	SeqNo: 120975 Units: µg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
...n disulfide	ND	10								
...on tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

...ifiers:

- ... Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120975** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.1	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		117	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.0	70	130			
Surr: Toluene-d8	10		10.00		105	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120980** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	84.1	126			
Toluene	22	1.0	20.00	0	109	80	120			
Chlorobenzene	21	1.0	20.00	0	107	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.6	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.5	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120980** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.9		10.00		88.5	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **1207711-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120981** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	66.8	128			
Toluene	23	1.0	20.00	0	116	70	130			
Chlorobenzene	21	1.0	20.00	0	104	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	97.9	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	92.2	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.0	70	130			
Surr: Toluene-d8	11		10.00		108	70	130			

Sample ID **1207711-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120982** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	66.8	128	0.0297	16.7	
Toluene	22	1.0	20.00	0	110	70	130	4.99	18.7	
Chlorobenzene	21	1.0	20.00	0	104	70	130	0.103	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	91.2	70	130	7.04	16.7	
Trichloroethene (TCE)	19	1.0	20.00	0	94.3	70	130	2.25	17.5	
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	12		10.00		119	70	130	0	0	
Surr: Dibromofluoromethane	9.3		10.00		92.6	70	130	0	0	
Surr: Toluene-d8	10		10.00		104	70	130	0	0	

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4375**	RunNo: **4375**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **121820** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	84.1	126			
Toluene	19	1.0	20.00	0	93.4	80	120			
Chlorobenzene	19	1.0	20.00	0	97.1	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	111	83	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4375**	RunNo: **4375**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **121820** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	21	1.0	20.00	0	104	76.2	119			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	12		10.00		120	70	130			
Surr: Toluene-d8	9.7		10.00		96.6	70	130			

Sample ID **1207855-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4375**	RunNo: **4375**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **121821** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	19	1.0	20.00	0	93.3	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	113	70	130			
Trichloroethene (TCE)	22	1.0	20.00	0	112	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		112	70	130			
Surr: 4-Bromofluorobenzene	8.0		10.00		80.1	70	130			
Surr: Dibromofluoromethane	13		10.00		130	70	130			
Surr: Toluene-d8	10		10.00		99.6	70	130			

Sample ID **1207855-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4375**	RunNo: **4375**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **121822** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	19	1.0	20.00	0	94.4	70	130	1.11	19.5	
1,1-Dichloroethene	20	1.0	20.00	0	99.3	70	130	12.5	16.7	
Trichloroethene (TCE)	19	1.0	20.00	0	93.1	70	130	18.0	17.5	R
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.2		10.00		82.4	70	130	0	0	
Surr: Dibromofluoromethane	12		10.00		115	70	130	0	0	
Surr: Toluene-d8	11		10.00		110	70	130	0	0	

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122005** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

ıt: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122005** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
methane	ND	3.0								
orotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene chloride	ND	3.0								

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122005** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	11		10.00		105	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122008** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	84.1	126			
Toluene	19	1.0	20.00	0	95.5	80	120			
Chlorobenzene	20	1.0	20.00	0	97.9	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.5	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	88.4	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	9.8		10.00		97.5	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5 ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R4375**	RunNo: **4375**	
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **123094**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
disulfide	ND	10								
on Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5 ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4375**	RunNo: **4375**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **123094** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	12		10.00		118	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4433**	RunNo: **4433**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **123684** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

t: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4433**	RunNo: **4433**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **123684** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
otoluene	ND	1.0								
ci ,z-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								

fiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **b3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4433**	RunNo: **4433**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **123684** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	12		10.00		117	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130			
Surr: Dibromofluoromethane	14		10.00		140	70	130			S
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4433**	RunNo: **4433**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **123687** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	84.1	126			
Toluene	19	1.0	20.00	0	96.1	80	120			
Chlorobenzene	19	1.0	20.00	0	95.5	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	111	83	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.6	76.2	119			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		116	70	130			
Surr: Dibromofluoromethane	12		10.00		119	70	130			
Surr: Toluene-d8	9.9		10.00		99.3	70	130			

Sample ID **1207794-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4433**	RunNo: **4433**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **123688** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **1207794-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**							
Client ID: **BatchQC**	Batch ID: **R4433**	RunNo: **4433**							
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **123688**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	120	5.0	100.0	0	123	66.8	128			
Toluene	100	5.0	100.0	0	103	70	130			
Chlorobenzene	99	5.0	100.0	0	98.6	70	130			
1,1-Dichloroethene	110	5.0	100.0	0	112	70	130			
Trichloroethene (TCE)	100	5.0	100.0	0	104	70	130			
Surr: 1,2-Dichloroethane-d4	54		50.00		108	70	130			
Surr: 4-Bromofluorobenzene	51		50.00		103	70	130			
Surr: Dibromofluoromethane	66		50.00		131	70	130			S
Surr: Toluene-d8	53		50.00		105	70	130			

Sample ID **1207a11-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**							
Client ID: **BatchQC**	Batch ID: **R4433**	RunNo: **4433**							
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **123689**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	9600	100	2000	7757	91.5	66.8	128			
Chlorobenzene	1900	100	2000	0	92.8	70	130			
[illegible]hloroethene	2000	100	2000	0	101	70	130			
[illegible]roethene (TCE)	2000	100	2000	0	97.6	70	130			
Surr: 1,2-Dichloroethane-d4	980		1000		97.6	70	130			
Surr: 4-Bromofluorobenzene	950		1000		95.2	70	130			
Surr: Dibromofluoromethane	1300		1000		126	70	130			
Surr: Toluene-d8	1100		1000		108	70	130			

Sample ID **1207794-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**							
Client ID: **BatchQC**	Batch ID: **R4433**	RunNo: **4433**							
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **123690**	Units: **µg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	120	5.0	100.0	0	117	66.8	128	5.19	16.7	
Toluene	100	5.0	100.0	0	103	70	130	0.0720	18.7	
Chlorobenzene	99	5.0	100.0	0	99.4	70	130	0.818	19.5	
1,1-Dichloroethene	92	5.0	100.0	0	91.9	70	130	20.1	16.7	R
Trichloroethene (TCE)	93	5.0	100.0	0	93.1	70	130	11.1	17.5	
Surr: 1,2-Dichloroethane-d4	50		50.00		101	70	130	0	0	
Surr: 4-Bromofluorobenzene	52		50.00		105	70	130	0	0	
Surr: Dibromofluoromethane	62		50.00		123	70	130	0	0	
Surr: Toluene-d8	52		50.00		104	70	130	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207a11-001amsd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4433** RunNo: **4433**

Prep Date: Analysis Date: **7/25/2012** SeqNo: **123691** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	9700	100	2000	7757	98.3	66.8	128	1.41	16.7	
Chlorobenzene	1900	100	2000	0	96.4	70	130	3.83	19.5	
1,1-Dichloroethene	2000	100	2000	0	102	70	130	0.569	16.7	
Trichloroethene (TCE)	1900	100	2000	0	92.6	70	130	5.27	17.5	
Surr: 1,2-Dichloroethane-d4	1100		1000		106	70	130	0	0	
Surr: 4-Bromofluorobenzene	1000		1000		101	70	130	0	0	
Surr: Dibromofluoromethane	1300		1000		135	70	130	0	0	S
Surr: Toluene-d8	1100		1000		106	70	130	0	0	

Sample ID **5ml-rb** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R4468** RunNo: **4468**

Prep Date: Analysis Date: **7/25/2012** SeqNo: **125370** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

ıt: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R4468**	RunNo: **4468**	
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **125370**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
·yl-2-pentanone	ND	10								
·ylene chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.9	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.5	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207900

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **125370** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **125371** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	84.1	126			
Toluene	21	1.0	20.00	0	106	80	120			
Chlorobenzene	20	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	94.8	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	86.4	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	10		10.00		99.7	70	130			
Surr: Toluene-d8	10		10.00		105	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **125372** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	84.1	126			
Toluene	20	1.0	20.00	0	99.6	80	120			
Chlorobenzene	20	1.0	20.00	0	98.3	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	88.2	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	82.9	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	10		10.00		99.6	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID **1207949-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **125377** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0.7848	97.9	66.8	128			
Toluene	21	1.0	20.00	0.7920	102	70	130			
Chlorobenzene	21	1.0	20.00	0	104	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.2	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	85.2	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	1207949-001a ms	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	BatchQC	Batch ID:	R4468	RunNo:	4468				
Prep Date:		Analysis Date:	7/25/2012	SeqNo:	125377	Units:	µg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	11		10.00		107	70	130			

Sample ID	1207a22-002ams	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	BatchQC	Batch ID:	R4468	RunNo:	4468				
Prep Date:		Analysis Date:	7/26/2012	SeqNo:	125378	Units:	µg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	990	50	1000	0	99.1	70	130			
1,1-Dichloroethene	910	50	1000	0	91.0	70	130			
Trichloroethene (TCE)	870	50	1000	0	86.7	70	130			
Surr: 1,2-Dichloroethane-d4	460		500.0		92.4	70	130			
Surr: 4-Bromofluorobenzene	490		500.0		98.8	70	130			
Surr: Dibromofluoromethane	510		500.0		102	70	130			
Surr: Toluene-d8	500		500.0		101	70	130			

Sample ID	1207a22-002amsd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	BatchQC	Batch ID:	R4468	RunNo:	4468				
Prep Date:		Analysis Date:	7/26/2012	SeqNo:	125380	Units:	µg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	1000	50	1000	0	101	70	130	1.54	19.5	
1,1-Dichloroethene	870	50	1000	0	86.5	70	130	4.99	16.7	
Trichloroethene (TCE)	850	50	1000	0	85.2	70	130	1.72	17.5	
Surr: 1,2-Dichloroethane-d4	470		500.0		93.1	70	130	0	0	
Surr: 4-Bromofluorobenzene	480		500.0		96.2	70	130	0	0	
Surr: Dibromofluoromethane	520		500.0		104	70	130	0	0	
Surr: Toluene-d8	520		500.0		105	70	130	0	0	

Sample ID	1207949-001a msd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	BatchQC	Batch ID:	R4468	RunNo:	4468				
Prep Date:		Analysis Date:	7/25/2012	SeqNo:	125381	Units:	µg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0.7848	97.8	66.8	128	0.104	16.7	
Toluene	20	1.0	20.00	0.7920	96.9	70	130	4.87	18.7	
Chlorobenzene	19	1.0	20.00	0	96.2	70	130	7.41	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	87.7	70	130	3.88	16.7	
Trichloroethene (TCE)	17	1.0	20.00	0	83.0	70	130	2.51	17.5	
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.5	70	130	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207949-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **125381** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	9.5		10.00		95.0	70	130	0	0	
Surr: Dibromofluoromethane	11		10.00		107	70	130	0	0	
Surr: Toluene-d8	10		10.00		102	70	130	0	0	

Sample ID **b15**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/26/2012**	SeqNo: **125426** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

ıt: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **b15**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/26/2012**	SeqNo: **125426** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
e	ND	1.0								
utylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-2962**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBS**	Batch ID: **2962**	RunNo: **4428**	
Prep Date: **7/23/2012**	Analysis Date: **7/25/2012**	SeqNo: **123425**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **mb-2962**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **2962**	RunNo: **4428**
Prep Date: **7/23/2012**	Analysis Date: **7/25/2012**	SeqNo: **123425** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
aniline	ND	0.40								
benzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.2		3.330		94.9	20.1	121			
Surr: 2-Fluorobiphenyl	1.5		1.670		86.9	19	133			
Surr: 2-Fluorophenol	2.4		3.330		73.0	20.2	108			
Surr: 4-Terphenyl-d14	1.5		1.670		91.1	18.9	115			
Surr: Nitrobenzene-d5	1.3		1.670		79.4	20.8	123			
Surr: Phenol-d5	2.6		3.330		78.8	19.8	115			

Sample ID **lcs-2962**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **2962**	RunNo: **4428**
Prep Date: **7/23/2012**	Analysis Date: **7/25/2012**	SeqNo: **123426** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **lcs-2962**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **2962**	RunNo: **4428**
Prep Date: **7/23/2012**	Analysis Date: **7/25/2012**	SeqNo: **123426** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	72.7	49.7	98.1			
4-Chloro-3-methylphenol	2.5	0.50	3.330	0	73.7	43.8	89.1			
2-Chlorophenol	2.1	0.20	3.330	0	62.5	41.1	96.9			
1,4-Dichlorobenzene	0.96	0.20	1.670	0	57.6	41	97.4			
2,4-Dinitrotoluene	1.4	0.50	1.670	0	83.6	44.4	104			
N-Nitrosodi-n-propylamine	1.3	0.20	1.670	0	75.2	39.1	86.9			
4-Nitrophenol	2.7	0.25	3.330	0	79.7	44.2	107			
Pentachlorophenol	2.4	0.40	3.330	0	71.3	36.2	80			
Phenol	2.3	0.20	3.330	0	69.4	42.7	92.7			
Pyrene	1.2	0.20	1.670	0	71.1	34.7	98.8			
1,2,4-Trichlorobenzene	1.1	0.20	1.670	0	66.9	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.3		3.330		100	20.1	121			
Surr: 2-Fluorobiphenyl	1.3		1.670		77.9	19	133			
Surr: 2-Fluorophenol	2.2		3.330		67.4	20.2	108			
Surr: 4-Terphenyl-d14	1.5		1.670		89.3	18.9	115			
Surr: Nitrobenzene-d5	1.2		1.670		73.4	20.8	123			
Surr: Phenol-d5	2.6		3.330		78.5	19.8	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **mb-2989**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBW**	Batch ID: **2989**	RunNo: **4400**	
Prep Date: **7/24/2012**	Analysis Date: **7/24/2012**	SeqNo: **122513**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
enzyl phthalate	ND	10								
azole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-2989**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **2989**	RunNo: **4400**
Prep Date: **7/24/2012**	Analysis Date: **7/24/2012**	SeqNo: **122513** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	170		200.0		85.4	44.2	126			
Surr: 2-Fluorobiphenyl	86		100.0		85.5	37	114			
Surr: 2-Fluorophenol	120		200.0		61.4	23.4	98			
Surr: 4-Terphenyl-d14	79		100.0		79.3	41.3	116			
Surr: Nitrobenzene-d5	84		100.0		84.2	39.5	118			
Surr: Phenol-d5	110		200.0		53.2	20.9	95.9			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207900

22-Aug-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **lcs-2989**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **2989**	RunNo: **4400**
Prep Date: **7/24/2012**	Analysis Date: **7/24/2012**	SeqNo: **122514** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	68	10	100.0	0	68.1	38.2	99.4			
4-Chloro-3-methylphenol	140	10	200.0	0	71.3	35.5	108			
2-Chlorophenol	130	10	200.0	0	62.6	29.8	106			
1,4-Dichlorobenzene	47	10	100.0	0	46.8	32.6	91.5			
2,4-Dinitrotoluene	83	10	100.0	0	82.7	44.7	112			
N-Nitrosodi-n-propylamine	70	10	100.0	0	70.3	38.5	105			
4-Nitrophenol	95	10	200.0	0	47.3	11.6	73.1			
Pentachlorophenol	120	20	200.0	0	61.2	20.2	93			
Phenol	84	10	200.0	0	42.0	23	66.1			
Pyrene	71	10	100.0	0	71.2	40.1	101			
1,2,4-Trichlorobenzene	54	10	100.0	0	53.7	37.7	99.1			
Surr: 2,4,6-Tribromophenol	160		200.0		81.9	44.2	126			
Surr: 2-Fluorobiphenyl	73		100.0		72.8	37	114			
Surr: 2-Fluorophenol	98		200.0		49.2	23.4	98			
Surr: 4-Terphenyl-d14	71		100.0		70.6	41.3	116			
Surr: Nitrobenzene-d5	65		100.0		65.1	39.5	118			
Surr: Phenol-d5	91		200.0		45.5	20.9	95.9			

.ple ID **lcsd-2989**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **2989**	RunNo: **4400**
Prep Date: **7/24/2012**	Analysis Date: **7/24/2012**	SeqNo: **122515** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	70	10	100.0	0	69.9	38.2	99.4	2.61	20	
4-Chloro-3-methylphenol	160	10	200.0	0	81.3	35.5	108	13.1	20	
2-Chlorophenol	110	10	200.0	0	55.6	29.8	106	11.9	20	
1,4-Dichlorobenzene	47	10	100.0	0	46.8	32.6	91.5	0.0854	20	
2,4-Dinitrotoluene	91	10	100.0	0	91.2	44.7	112	9.75	20	
N-Nitrosodi-n-propylamine	75	10	100.0	0	74.6	38.5	105	5.82	20	
4-Nitrophenol	92	10	200.0	0	46.1	11.6	73.1	2.55	20	
Pentachlorophenol	110	20	200.0	0	57.5	20.2	93	6.30	20	
Phenol	83	10	200.0	0	41.5	23	66.1	1.15	20	
Pyrene	71	10	100.0	0	71.2	40.1	101	0	20	
1,2,4-Trichlorobenzene	56	10	100.0	0	55.5	37.7	99.1	3.33	20	
Surr: 2,4,6-Tribromophenol	150		200.0		75.1	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	73		100.0		73.1	37	114	0	0	
Surr: 2-Fluorophenol	81		200.0		40.7	23.4	98	0	0	
Surr: 4-Terphenyl-d14	80		100.0		79.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	70		100.0		70.1	39.5	118	0	0	
Surr: Phenol-d5	88		200.0		44.2	20.9	95.9	0	0	

ifiers:

- Value exceeds Maximum Contaminant Level.
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- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	MB-3131	SampType:	MBLK	TestCode:	EPA Method 7471: Mercury					
Client ID:	PBS	Batch ID:	3131	RunNo:	4597					
Prep Date:	8/1/2012	Analysis Date:	8/2/2012	SeqNo:	128955	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-3131	SampType:	LCS	TestCode:	EPA Method 7471: Mercury					
Client ID:	LCSS	Batch ID:	3131	RunNo:	4597					
Prep Date:	8/1/2012	Analysis Date:	8/2/2012	SeqNo:	128956	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1667	0	93.3	80	120			

Sample ID	1207B18-001BMS	SampType:	MS	TestCode:	EPA Method 7471: Mercury					
Client ID:	BatchQC	Batch ID:	3131	RunNo:	4597					
Prep Date:	8/1/2012	Analysis Date:	8/2/2012	SeqNo:	128971	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.21	0.033	0.1648	0.06444	87.3	75	125			

Sample ID	1207B18-001BMSD	SampType:	MSD	TestCode:	EPA Method 7471: Mercury					
Client ID:	BatchQC	Batch ID:	3131	RunNo:	4597					
Prep Date:	8/1/2012	Analysis Date:	8/2/2012	SeqNo:	128972	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.20	0.033	0.1651	0.06444	84.5	75	125	2.10	20	

Qualifiers:

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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-3009	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS	Batch ID:	3009	RunNo:	4698				
Prep Date:	7/24/2012	Analysis Date:	8/6/2012	SeqNo:	132140	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	1.0								

Sample ID	LCS-3009	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	LCSS	Batch ID:	3009	RunNo:	4698				
Prep Date:	7/24/2012	Analysis Date:	8/6/2012	SeqNo:	132141	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	26	1.0	25.00	0.9555	99.3	80	120			

Sample ID	MB-3009	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS	Batch ID:	3009	RunNo:	4699				
Prep Date:	7/24/2012	Analysis Date:	8/5/2012	SeqNo:	132220	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
P "ium	ND	0.15								
um	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID	LCS-3009	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	LCSS	Batch ID:	3009	RunNo:	4699				
Prep Date:	7/24/2012	Analysis Date:	8/5/2012	SeqNo:	132221	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	28	2.5	25.00	0	114	80	120			
Arsenic	29	2.5	25.00	0	117	80	120			
Barium	27	0.10	25.00	0	107	80	120			
Beryllium	29	0.15	25.00	0.01250	117	80	120			
Cadmium	27	0.10	25.00	0	110	80	120			
Chromium	26	0.30	25.00	0	106	80	120			
Cobalt	29	0.30	25.00	0	115	80	120			
Lead	27	0.25	25.00	0	110	80	120			

ifiers:

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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	LCS-3009	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	LCSS	Batch ID:	3009	RunNo:	4699					
Prep Date:	7/24/2012	Analysis Date:	8/5/2012	SeqNo:	132221	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	26	0.10	25.00	0.07300	106	80	120			
Nickel	26	0.50	25.00	0	105	80	120			
Selenium	30	2.5	25.00	0	121	80	120			S
Silver	5.4	0.25	5.000	0	108	80	120			
Vanadium	27	2.5	25.00	0.07050	109	80	120			
Zinc	29	2.5	25.00	0	116	80	120			

Sample ID	1207917-005CMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	BatchQC	Batch ID:	3009	RunNo:	4699					
Prep Date:	7/24/2012	Analysis Date:	8/5/2012	SeqNo:	132249	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	21	12	23.84	0	89.4	75	125			
Beryllium	24	0.75	23.84	0.6761	97.6	75	125			
Cadmium	22	0.50	23.84	0	90.6	75	125			
Chromium	29	1.5	23.84	8.850	84.7	75	125			
Cobalt	26	1.5	23.84	4.445	90.6	75	125			
Lead	23	1.2	23.84	3.311	82.6	75	125			
Nickel	27	2.5	23.84	6.181	86.9	75	125			
Silver	4.0	1.2	4.768	0	83.8	75	125			

Sample ID	1207917-005CMSD	SampType:	MSD	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	BatchQC	Batch ID:	3009	RunNo:	4699					
Prep Date:	7/24/2012	Analysis Date:	8/5/2012	SeqNo:	132250	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	24	12	24.91	0	94.6	75	125	9.99	20	
Beryllium	25	0.75	24.91	0.6761	98.4	75	125	5.04	20	
Cadmium	23	0.50	24.91	0	90.6	75	125	4.33	20	
Chromium	32	1.5	24.91	8.850	94.1	75	125	10.6	20	
Cobalt	27	1.5	24.91	4.445	91.3	75	125	4.29	20	
Lead	25	1.2	24.91	3.311	87.3	75	125	8.61	20	
Nickel	29	2.5	24.91	6.181	91.7	75	125	7.56	20	
Silver	4.4	1.2	4.982	0	88.1	75	125	9.44	20	

Sample ID	1207917-005CMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	BatchQC	Batch ID:	3009	RunNo:	4734					
Prep Date:	7/24/2012	Analysis Date:	8/8/2012	SeqNo:	133485	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	13	12	23.84	0	54.1	75	125			S
Vanadium	43	12	23.84	31.42	47.7	75	125			S

Qualifiers:

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207900**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	1207917-005CMSD	SampType:	MSD			TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	BatchQC	Batch ID:	3009			RunNo:	4734			
Prep Date:	7/24/2012	Analysis Date:	8/8/2012			SeqNo:	133486	Units:	mg/Kg	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	14	12	24.91	0	57.7	75	125	10.9	20	S
Vanadium	55	12	24.91	31.42	93.0	75	125	24.2	20	R

Sample ID	1207917-005CMS	SampType:	MS			TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	BatchQC	Batch ID:	3009			RunNo:	4816			
Prep Date:	7/24/2012	Analysis Date:	8/10/2012			SeqNo:	135933	Units:	mg/Kg	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	13	23.84	3.961	28.4	75	125			S
Zinc	35	13	23.84	16.80	76.6	75	125			

Sample ID	1207917-005CMSD	SampType:	MSD			TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	BatchQC	Batch ID:	3009			RunNo:	4816			
Prep Date:	7/24/2012	Analysis Date:	8/10/2012			SeqNo:	135934	Units:	mg/Kg	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	13	24.91	3.961	34.3	75	125	0	20	S
Zinc	39	13	24.91	16.80	90.3	75	125	11.4	20	

Qualifiers:

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- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1207900**

Received by/date: AT 07/20/12

Logged By: **Ashley Gallegos** 7/20/2012 7:55:00 AM

Completed By: **Ashley Gallegos** 7/20/2012 9:45:16 AM

Reviewed By: AT 07/20/12

Chain of Custody

1. Were seals intact?	Yes ✓	No	Not Present
2. Is Chain of Custody complete?	Yes ✓	No	Not Present
3. How was the sample delivered?	FedEx		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ✓	No	NA
5. Was an attempt made to cool the samples?	Yes ✓	No	NA
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ✓	No	NA
7. Sample(s) in proper container(s)?	Yes ✓	No	
8. Sufficient sample volume for indicated test(s)?	Yes ✓	No	
9. Are samples (except VOA and ONG) properly preserved?	Yes ✓	No	
10. Was preservative added to bottles?	Yes ✓	No	NA
11. VOA vials have zero headspace?	Yes ✓	No	No VOA Vials
12. Were any sample containers received broken?	Yes	No ✓	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✓	No	
14. Are matrices correctly identified on Chain of Custody?	Yes ✓	No	
15. Is it clear what analyses were requested?	Yes ✓	No	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✓	No	

HJ 7/20

Added 6mL HNO_3 to 0076 for acceptable pH.

# of preserved bottles checked for pH: 2

(<2 or >12 unless noted)

Adjusted? Yes

Checked by: MJ

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes No NA ✓

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU NO. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: [illegible]

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1207700	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
7/18/12	1125	SOIL	SWMU 14-3 (0-0.5')	2 ENCORES	—	-001										X						
				2 VIALS	MeOH	-001										X						
				2 JARS	—	-001										X	X	X	X			
	1200	SOIL	SWMU 14-3 (1.5-2')	2 ENCORES	—	-002										X						
				2 VIALS	MeOH	-002										X						
				2 JARS	—	-002										X	X	X	X			
	1215	SOIL	SWMU 14-3 (8-10)	2 ENCORES	—	-003										X						
				2 VIALS	MeOH	-003										X						
				2 JARS	—	-003										X	X	X	X			
	1230	SOIL	SWMU 14-3 (12-14)	2 ENCORES	—	-004										X						
				2 ~~JARS~~ VIALS	MeOH	-004										X						
				2 ~~VIALS~~ JARS	—	-004										X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
7.18.12	1830	TRACY PAYNE	[signature]	07/20/12	0755
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM. 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU NO. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.1 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1207100	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
7/18/12	1245	SOIL	SWMU 14-3 (25.5-26')	2 ENCORES	—	-005										X						
				2 VIALS	MEOH	-005										X						
				2 JARS	—	-005										X	X	X	X			
	1345	SOIL	SWMU 14-1 (48-50')	2 ENCORES	—	-006										X						
				2 VIALS	MEOH	-006										X						
				2 JARS	—	-006										X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
7.19.12	0830	TRACY PAYNE		07/20/12	0755
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: SWMU NO.14
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1207
7-18-12	1045	WATER	SWMU 14-3 GW	6 VOA	HCL & NEAT	-007
				1 L AMBER	—	-007
				1 PLASTIC	HNO_3	-007
7-18-12	1315	WATER	FB07181 2	6 VOA	HCL & NEAT	-008
				1 L AMBER	—	-008
				1 PLASTIC	HNO_3	-008
				1 PLASTIC	NaOH	-008
7/18/12	—	WATER	TRIP BLANK	1 VOA	HCL	-009
↓	—	MEOH	MEOH BLANK	2 VIALS	MEOH	-010

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	TPH	METALS			Air Bubbles (Y or N)
									X		X				
										X					
												X			
									X		X				
										X					
												X			
												X			
									X						
									X						

Date:	Time:	Relinquished by:	Received by:	Date	Time
7.19.12	0830	TRACY PAYNE		07/20/12	0755
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Analyte	Analytical Method
Antimony	SW-846 method 6010/6020
Arsenic	SW-846 method 6010/6020
Barium	SW-846 method 6010/6020
Beryllium	SW-846 method 6010/6020
Cadmium	SW-846 method 6010/6020
Chromium	SW-846 method 6010/6020
Cobalt	SW-846 method 6010/6020
Cyanide	SW-846 method 335.4/335.2 mod
Lead	SW-846 method 6010/6020
Mercury	SW-846 method 7470/7471
Nickel	SW-846 method 6010/6020
Selenium	SW-846 method 6010/6020
Silver	SW-846 method 6010/6020
Vanadium	SW-846 method 6010/6020
Zinc	SW-846 method 6010/6020
Iron	SW-846 method 6010/6020
Manganese	SW-846 method 6010/6020

Scott T. Crouch P.G.
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HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 22, 2012

Scott Crouch
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.14 OrderNo.: 1207917

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 13 sample(s) on 7/20/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1207917**
Date Reported: **8/22/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-4 (0-0.5')
Collection Date: 7/17/2012 1:18:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	88	9.9		mg/Kg	1	7/23/2012 10:21:31 AM
Motor Oil Range Organics (MRO)	56	50		mg/Kg	1	7/23/2012 10:21:31 AM
Surr: DNOP	111	77.6-140		%REC	1	7/23/2012 10:21:31 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	10		mg/Kg	2	7/25/2012 10:02:17 PM
Surr: BFB	97.8	84-116		%REC	2	7/25/2012 10:02:17 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 10:58:53 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	2.5		mg/Kg	1	8/9/2012 5:34:54 AM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:54:51 PM
Barium	870	2.0		mg/Kg	20	8/8/2012 10:55:27 AM
Beryllium	0.33	0.15		mg/Kg	1	8/5/2012 7:25:13 PM
Cadmium	ND	0.10		mg/Kg	1	8/5/2012 7:25:13 PM
Chromium	3.4	0.30		mg/Kg	1	8/5/2012 7:25:13 PM
Cobalt	2.5	0.30		mg/Kg	1	8/5/2012 7:25:13 PM
Iron	3200	100		mg/Kg	100	8/8/2012 10:57:55 AM
Lead	ND	0.25		mg/Kg	1	8/5/2012 7:25:13 PM
Manganese	320	2.0		mg/Kg	20	8/8/2012 10:55:27 AM
Nickel	3.1	0.50		mg/Kg	1	8/5/2012 7:25:13 PM
Selenium	ND	2.5		mg/Kg	1	8/5/2012 7:25:13 PM
Silver	ND	0.25		mg/Kg	1	8/5/2012 7:25:13 PM
Vanadium	17	2.5		mg/Kg	1	8/5/2012 7:25:13 PM
Zinc	8.3	2.5		mg/Kg	1	8/5/2012 7:25:13 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Acenaphthylene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Aniline	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Anthracene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Azobenzene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Benzoic acid	ND	1.0		mg/Kg	1	7/25/2012 9:48:10 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-4 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/17/2012 1:18:00 PM
Lab ID: 1207917-001 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	7/25/2012 9:48:10 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Carbazole	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	7/25/2012 9:48:10 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	7/25/2012 9:48:10 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	7/25/2012 9:48:10 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Chrysene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	7/25/2012 9:48:10 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	7/25/2012 9:48:10 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Dibenzofuran	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	7/25/2012 9:48:10 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	7/25/2012 9:48:10 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	7/25/2012 9:48:10 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	7/25/2012 9:48:10 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	7/25/2012 9:48:10 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	7/25/2012 9:48:10 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	7/25/2012 9:48:10 PM
Fluoranthene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Fluorene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Hexachloroethane	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Isophorone	ND	1.0		mg/Kg	1	7/25/2012 9:48:10 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
2-Methylphenol	ND	1.0		mg/Kg	1	7/25/2012 9:48:10 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Naphthalene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM

Qualifiers:
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- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-4 (0-0.5')
Collection Date: 7/17/2012 1:18:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	7/25/2012 9:48:10 PM
Nitrobenzene	ND	1.0		mg/Kg	1	7/25/2012 9:48:10 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	7/25/2012 9:48:10 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	7/25/2012 9:48:10 PM
Phenanthrene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Phenol	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Pyrene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Pyridine	ND	1.0		mg/Kg	1	7/25/2012 9:48:10 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	7/25/2012 9:48:10 PM
Surr: 2,4,6-Tribromophenol	116	20.1-121		%REC	1	7/25/2012 9:48:10 PM
Surr: 2-Fluorobiphenyl	102	19-133		%REC	1	7/25/2012 9:48:10 PM
Surr: 2-Fluorophenol	101	20.2-108		%REC	1	7/25/2012 9:48:10 PM
Surr: 4-Terphenyl-d14	102	18.9-115		%REC	1	7/25/2012 9:48:10 PM
Surr: Nitrobenzene-d5	106	20.8-123		%REC	1	7/25/2012 9:48:10 PM
Surr: Phenol-d5	98.5	19.8-115		%REC	1	7/25/2012 9:48:10 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Toluene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Ethylbenzene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Xylenes, Total	ND	2.81		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Methyl tert-butyl ether (MTBE)	ND	1.87		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,2,4-Trimethylbenzene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,3,5-Trimethylbenzene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,2-Dichloroethane (EDC)	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,2-Dibromoethane (EDB)	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Naphthalene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1-Methylnaphthalene	ND	3.74		µg/Kg-dry	1	7/26/2012 5:39:45 PM
2-Methylnaphthalene	ND	3.74		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Acetone	ND	28.1		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Bromobenzene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Bromodichloromethane	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Bromoform	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
2-Butanone	ND	4.68		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Carbon tetrachloride	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Chlorobenzene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Chloroethane	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Chloroform	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-4 (0-0.5')
Collection Date: 7/17/2012 1:18:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
2-Chlorotoluene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Carbon disulfide	ND	4.68		µg/Kg-dry	1	7/26/2012 5:39:45 PM
4-Chlorotoluene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
cis-1,2-DCE	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
cis-1,3-Dichloropropene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,2-Dibromo-3-chloropropane	ND	1.87		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Dibromochloromethane	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Dibromomethane	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,2-Dichlorobenzene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,3-Dichlorobenzene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,4-Dichlorobenzene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Dichlorodifluoromethane	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,1-Dichloroethane	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,1-Dichloroethene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,2-Dichloropropane	ND	1.87		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,3-Dichloropropane	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
2,2-Dichloropropane	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,1-Dichloropropene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Hexachlorobutadiene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Isopropylbenzene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
4-Isopropyltoluene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Methylene chloride	ND	4.68		µg/Kg-dry	1	7/26/2012 5:39:45 PM
n-Butylbenzene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
2-Hexanone	ND	4.68		µg/Kg-dry	1	7/26/2012 5:39:45 PM
n-Propylbenzene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
sec-Butylbenzene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Styrene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
4-Methyl-2-pentanone	ND	4.68		µg/Kg-dry	1	7/26/2012 5:39:45 PM
tert-Butylbenzene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,1,1,2-Tetrachloroethane	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,1,2,2-Tetrachloroethane	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Tetrachloroethene (PCE)	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
trans-1,2-DCE	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
trans-1,3-Dichloropropene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,2,3-Trichlorobenzene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,2,4-Trichlorobenzene	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,1,1-Trichloroethane	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,1,2-Trichloroethane	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Trichloroethene (TCE)	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Trichlorofluoromethane	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
1,2,3-Trichloropropane	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-4 (0-0.5')
Collection Date: 7/17/2012 1:18:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.935		µg/Kg-dry	1	7/26/2012 5:39:45 PM
Surr: 1,2-Dichloroethane-d4	96.9	70-130		%REC	1	7/26/2012 5:39:45 PM
Surr: 4-Bromofluorobenzene	93.3	70-130		%REC	1	7/26/2012 5:39:45 PM
Surr: Dibromofluoromethane	86.2	70-130		%REC	1	7/26/2012 5:39:45 PM
Surr: Toluene-d8	95.3	70-130		%REC	1	7/26/2012 5:39:45 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-4 (1.5-2.0')
Collection Date: 7/17/2012 1:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	39	10		mg/Kg	1	7/23/2012 8:40:31 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	7/23/2012 8:40:31 AM
Surr: DNOP	112	77.6-140		%REC	1	7/23/2012 8:40:31 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/25/2012 10:30:55 PM
Surr: BFB	98.8	84-116		%REC	1	7/25/2012 10:30:55 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 11:00:41 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	2.5		mg/Kg	1	8/9/2012 5:37:28 AM
Arsenic	ND	12		mg/Kg	5	8/5/2012 6:05:34 PM
Barium	870	2.0		mg/Kg	20	8/8/2012 11:00:44 AM
Beryllium	0.51	0.15		mg/Kg	1	8/5/2012 7:27:43 PM
Cadmium	ND	0.10		mg/Kg	1	8/5/2012 7:27:43 PM
Chromium	5.2	0.30		mg/Kg	1	8/5/2012 7:27:43 PM
Cobalt	2.7	0.30		mg/Kg	1	8/5/2012 7:27:43 PM
Iron	7500	500		mg/Kg	500	8/8/2012 11:04:52 AM
Lead	0.37	0.25		mg/Kg	1	8/5/2012 7:27:43 PM
Manganese	340	2.0		mg/Kg	20	8/8/2012 11:00:44 AM
Nickel	4.4	0.50		mg/Kg	1	8/5/2012 7:27:43 PM
Selenium	ND	2.5		mg/Kg	1	8/5/2012 7:27:43 PM
Silver	ND	0.25		mg/Kg	1	8/5/2012 7:27:43 PM
Vanadium	13	2.5		mg/Kg	1	8/5/2012 7:27:43 PM
Zinc	10	2.5		mg/Kg	1	8/5/2012 7:27:43 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Acenaphthylene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Aniline	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Anthracene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Azobenzene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Benzoic acid	ND	1.0		mg/Kg	1	7/25/2012 10:18:04 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-4 (1.5-2.0')
Collection Date: 7/17/2012 1:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	7/25/2012 10:18:04 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Carbazole	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	7/25/2012 10:18:04 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	7/25/2012 10:18:04 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	7/25/2012 10:18:04 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Chrysene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	7/25/2012 10:18:04 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	7/25/2012 10:18:04 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Dibenzofuran	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	7/25/2012 10:18:04 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	7/25/2012 10:18:04 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	7/25/2012 10:18:04 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	7/25/2012 10:18:04 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	7/25/2012 10:18:04 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	7/25/2012 10:18:04 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	7/25/2012 10:18:04 PM
Fluoranthene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Fluorene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Hexachloroethane	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Isophorone	ND	1.0		mg/Kg	1	7/25/2012 10:18:04 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
2-Methylphenol	ND	1.0		mg/Kg	1	7/25/2012 10:18:04 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Naphthalene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-4 (1.5-2.0')
Collection Date: 7/17/2012 1:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	7/25/2012 10:18:04 PM
Nitrobenzene	ND	1.0		mg/Kg	1	7/25/2012 10:18:04 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	7/25/2012 10:18:04 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	7/25/2012 10:18:04 PM
Phenanthrene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Phenol	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Pyrene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Pyridine	ND	1.0		mg/Kg	1	7/25/2012 10:18:04 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	7/25/2012 10:18:04 PM
Surr: 2,4,6-Tribromophenol	55.9	20.1-121		%REC	1	7/25/2012 10:18:04 PM
Surr: 2-Fluorobiphenyl	49.0	19-133		%REC	1	7/25/2012 10:18:04 PM
Surr: 2-Fluorophenol	44.4	20.2-108		%REC	1	7/25/2012 10:18:04 PM
Surr: 4-Terphenyl-d14	56.4	18.9-115		%REC	1	7/25/2012 10:18:04 PM
Surr: Nitrobenzene-d5	49.5	20.8-123		%REC	1	7/25/2012 10:18:04 PM
Surr: Phenol-d5	45.2	19.8-115		%REC	1	7/25/2012 10:18:04 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Toluene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Ethylbenzene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Xylenes, Total	ND	2.52		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Methyl tert-butyl ether (MTBE)	ND	1.68		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,2,4-Trimethylbenzene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,3,5-Trimethylbenzene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,2-Dichloroethane (EDC)	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,2-Dibromoethane (EDB)	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Naphthalene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1-Methylnaphthalene	ND	3.36		µg/Kg-dry	1	7/26/2012 6:07:20 PM
2-Methylnaphthalene	ND	3.36		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Acetone	ND	25.2		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Bromobenzene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Bromodichloromethane	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Bromoform	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
2-Butanone	ND	4.20		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Carbon tetrachloride	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Chlorobenzene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Chloroethane	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Chloroform	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-4 (1.5-2.0')
Collection Date: 7/17/2012 1:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
2-Chlorotoluene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Carbon disulfide	ND	4.20		µg/Kg-dry	1	7/26/2012 6:07:20 PM
4-Chlorotoluene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
cis-1,2-DCE	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
cis-1,3-Dichloropropene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,2-Dibromo-3-chloropropane	ND	1.68		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Dibromochloromethane	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Dibromomethane	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,2-Dichlorobenzene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,3-Dichlorobenzene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,4-Dichlorobenzene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Dichlorodifluoromethane	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,1-Dichloroethane	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,1-Dichloroethene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,2-Dichloropropane	ND	1.68		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,3-Dichloropropane	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
2,2-Dichloropropane	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,1-Dichloropropene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Hexachlorobutadiene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Isopropylbenzene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
4-Isopropyltoluene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Methylene chloride	ND	4.20		µg/Kg-dry	1	7/26/2012 6:07:20 PM
n-Butylbenzene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
2-Hexanone	ND	4.20		µg/Kg-dry	1	7/26/2012 6:07:20 PM
n-Propylbenzene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
sec-Butylbenzene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Styrene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
4-Methyl-2-pentanone	ND	4.20		µg/Kg-dry	1	7/26/2012 6:07:20 PM
tert-Butylbenzene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,1,1,2-Tetrachloroethane	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,1,2,2-Tetrachloroethane	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Tetrachloroethene (PCE)	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
trans-1,2-DCE	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
trans-1,3-Dichloropropene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,2,3-Trichlorobenzene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,2,4-Trichlorobenzene	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,1,1-Trichloroethane	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,1,2-Trichloroethane	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Trichloroethene (TCE)	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Trichlorofluoromethane	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
1,2,3-Trichloropropane	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-4 (1.5-2.0')
Collection Date: 7/17/2012 1:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.840		µg/Kg-dry	1	7/26/2012 6:07:20 PM
Surr: 1,2-Dichloroethane-d4	181	70-130	S	%REC	1	7/26/2012 6:07:20 PM
Surr: 4-Bromofluorobenzene	89.1	70-130		%REC	1	7/26/2012 6:07:20 PM
Surr: Dibromofluoromethane	83.0	70-130		%REC	1	7/26/2012 6:07:20 PM
Surr: Toluene-d8	98.4	70-130		%REC	1	7/26/2012 6:07:20 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-4 (10-12')
Collection Date: 7/17/2012 2:00:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	610	100		mg/Kg	10	7/22/2012 7:01:02 PM
Motor Oil Range Organics (MRO)	ND	510		mg/Kg	10	7/22/2012 7:01:02 PM
Surr: DNOP	0	77.6-140	S	%REC	10	7/22/2012 7:01:02 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	67	50		mg/Kg	10	7/25/2012 10:59:42 PM
Surr: BFB	165	84-116	S	%REC	10	7/25/2012 10:59:42 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 11:02:31 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 6:07:55 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 6:07:55 PM
Barium	460	2.0		mg/Kg	20	8/8/2012 11:18:39 AM
Beryllium	0.86	0.75		mg/Kg	5	8/5/2012 6:07:55 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 6:07:55 PM
Chromium	12	1.5		mg/Kg	5	8/5/2012 6:07:55 PM
Cobalt	5.0	1.5		mg/Kg	5	8/5/2012 6:07:55 PM
Iron	16000	500		mg/Kg	500	8/8/2012 11:21:06 AM
Lead	2.4	1.2		mg/Kg	5	8/5/2012 6:07:55 PM
Manganese	720	2.0		mg/Kg	20	8/8/2012 11:18:39 AM
Nickel	8.6	2.5		mg/Kg	5	8/5/2012 6:07:55 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 6:07:55 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 6:07:55 PM
Vanadium	25	12		mg/Kg	5	8/5/2012 6:07:55 PM
Zinc	22	12		mg/Kg	5	8/10/2012 5:27:11 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	1.0	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Acenaphthylene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Aniline	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Anthracene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Azobenzene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Benzoic acid	ND	1.0		mg/Kg	1	7/25/2012 10:47:54 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-4 (10-12')
Collection Date: 7/17/2012 2:00:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	7/25/2012 10:47:54 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Carbazole	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	7/25/2012 10:47:54 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	7/25/2012 10:47:54 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	7/25/2012 10:47:54 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Chrysene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	7/25/2012 10:47:54 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	7/25/2012 10:47:54 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Dibenzofuran	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	7/25/2012 10:47:54 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	7/25/2012 10:47:54 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	7/25/2012 10:47:54 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	7/25/2012 10:47:54 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	7/25/2012 10:47:54 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	7/25/2012 10:47:54 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	7/25/2012 10:47:54 PM
Fluoranthene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Fluorene	1.4	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Hexachloroethane	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Isophorone	ND	1.0		mg/Kg	1	7/25/2012 10:47:54 PM
1-Methylnaphthalene	29	4.0		mg/Kg	10	7/26/2012 11:34:14 AM
2-Methylnaphthalene	46	4.0		mg/Kg	10	7/26/2012 11:34:14 AM
2-Methylphenol	ND	1.0		mg/Kg	1	7/25/2012 10:47:54 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Naphthalene	4.0	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-4 (10-12')
Collection Date: 7/17/2012 2:00:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	7/25/2012 10:47:54 PM
Nitrobenzene	ND	1.0		mg/Kg	1	7/25/2012 10:47:54 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	7/25/2012 10:47:54 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	7/25/2012 10:47:54 PM
Phenanthrene	3.3	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Phenol	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Pyrene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Pyridine	ND	1.0		mg/Kg	1	7/25/2012 10:47:54 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	7/25/2012 10:47:54 PM
Surr: 2,4,6-Tribromophenol	78.0	20.1-121		%REC	1	7/25/2012 10:47:54 PM
Surr: 2-Fluorobiphenyl	90.5	19-133		%REC	1	7/25/2012 10:47:54 PM
Surr: 2-Fluorophenol	101	20.2-108		%REC	1	7/25/2012 10:47:54 PM
Surr: 4-Terphenyl-d14	105	18.9-115		%REC	1	7/25/2012 10:47:54 PM
Surr: Nitrobenzene-d5	99.3	20.8-123		%REC	1	7/25/2012 10:47:54 PM
Surr: Phenol-d5	108	19.8-115		%REC	1	7/25/2012 10:47:54 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
Toluene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
Ethylbenzene	1.4	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,2,4-Trimethylbenzene	7.8	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,3,5-Trimethylbenzene	1.7	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
Naphthalene	9.2	2.0		mg/Kg	20	7/23/2012 4:03:36 PM
1-Methylnaphthalene	45	4.0		mg/Kg	20	7/23/2012 4:03:36 PM
2-Methylnaphthalene	90	20		mg/Kg	100	7/24/2012 11:40:15 AM
Acetone	ND	15		mg/Kg	20	7/23/2012 4:03:36 PM
Bromobenzene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
Bromoform	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
Bromomethane	ND	3.0		mg/Kg	20	7/23/2012 4:03:36 PM
2-Butanone	ND	10		mg/Kg	20	7/23/2012 4:03:36 PM
Carbon disulfide	ND	10		mg/Kg	20	7/23/2012 4:03:36 PM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/23/2012 4:03:36 PM
Chlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
Chloroethane	ND	2.0		mg/Kg	20	7/23/2012 4:03:36 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-4 (10-12')
Collection Date: 7/17/2012 2:00:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
Chloromethane	ND	3.0		mg/Kg	20	7/23/2012 4:03:36 PM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/23/2012 4:03:36 PM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
Dibromomethane	ND	2.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/23/2012 4:03:36 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/23/2012 4:03:36 PM
2-Hexanone	ND	10		mg/Kg	20	7/23/2012 4:03:36 PM
Isopropylbenzene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
4-Isopropyltoluene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/23/2012 4:03:36 PM
Methylene chloride	ND	3.0		mg/Kg	20	7/23/2012 4:03:36 PM
n-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
n-Propylbenzene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
sec-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
Styrene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,1,2-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/23/2012 4:03:36 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-4 (10-12')
Collection Date: 7/17/2012 2:00:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	1.0		mg/Kg	20	7/23/2012 4:03:36 PM
Xylenes, Total	ND	2.0		mg/Kg	20	7/23/2012 4:03:36 PM
Surr: 1,2-Dichloroethane-d4	92.1	70-130		%REC	20	7/23/2012 4:03:36 PM
Surr: 4-Bromofluorobenzene	75.4	70-130		%REC	20	7/23/2012 4:03:36 PM
Surr: Dibromofluoromethane	103	70-130		%REC	20	7/23/2012 4:03:36 PM
Surr: Toluene-d8	104	70-130		%REC	20	7/23/2012 4:03:36 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-4 (19.5-20')
Project: SWMU NO.14
Collection Date: 7/17/2012 2:15:00 PM
Lab ID: 1207917-004 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/22/2012 5:10:45 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	7/22/2012 5:10:45 PM
Surr: DNOP	113	77.6-140		%REC	1	7/22/2012 5:10:45 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/25/2012 11:28:30 PM
Surr: BFB	103	84-116		%REC	1	7/25/2012 11:28:30 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/3/2012 3:47:09 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 6:10:19 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 6:10:19 PM
Barium	480	5.0		mg/Kg	50	8/8/2012 11:23:48 AM
Beryllium	1.3	0.75		mg/Kg	5	8/5/2012 6:10:19 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 6:10:19 PM
Chromium	22	1.5		mg/Kg	5	8/5/2012 6:10:19 PM
Cobalt	8.0	1.5		mg/Kg	5	8/5/2012 6:10:19 PM
Iron	23000	500		mg/Kg	500	8/8/2012 11:26:15 AM
Lead	1.4	1.2		mg/Kg	5	8/5/2012 6:10:19 PM
Manganese	1000	5.0		mg/Kg	50	8/8/2012 11:23:48 AM
Nickel	17	2.5		mg/Kg	5	8/5/2012 6:10:19 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 6:10:19 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 6:10:19 PM
Vanadium	15	12		mg/Kg	5	8/5/2012 6:10:19 PM
Zinc	25	12		mg/Kg	5	8/10/2012 5:31:16 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Acenaphthylene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Aniline	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Anthracene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Azobenzene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Benzoic acid	ND	0.50		mg/Kg	1	7/26/2012 8:04:37 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-4 (19.5-20')
Project: SWMU NO.14
Collection Date: 7/17/2012 2:15:00 PM
Lab ID: 1207917-004 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/26/2012 8:04:37 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Carbazole	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/26/2012 8:04:37 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	7/26/2012 8:04:37 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/26/2012 8:04:37 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Chrysene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/26/2012 8:04:37 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	7/26/2012 8:04:37 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Dibenzofuran	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/26/2012 8:04:37 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/26/2012 8:04:37 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/26/2012 8:04:37 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/26/2012 8:04:37 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/26/2012 8:04:37 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/26/2012 8:04:37 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/26/2012 8:04:37 PM
Fluoranthene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Fluorene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Hexachloroethane	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Isophorone	ND	0.50		mg/Kg	1	7/26/2012 8:04:37 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
2-Methylphenol	ND	0.50		mg/Kg	1	7/26/2012 8:04:37 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Naphthalene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-4 (19.5-20')
Collection Date: 7/17/2012 2:15:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	7/26/2012 8:04:37 PM
Nitrobenzene	ND	0.50		mg/Kg	1	7/26/2012 8:04:37 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	7/26/2012 8:04:37 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	7/26/2012 8:04:37 PM
Phenanthrene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Phenol	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Pyrene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Pyridine	ND	0.50		mg/Kg	1	7/26/2012 8:04:37 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/26/2012 8:04:37 PM
Surr: 2,4,6-Tribromophenol	79.7	20.1-121		%REC	1	7/26/2012 8:04:37 PM
Surr: 2-Fluorobiphenyl	69.3	19-133		%REC	1	7/26/2012 8:04:37 PM
Surr: 2-Fluorophenol	63.5	20.2-108		%REC	1	7/26/2012 8:04:37 PM
Surr: 4-Terphenyl-d14	71.5	18.9-115		%REC	1	7/26/2012 8:04:37 PM
Surr: Nitrobenzene-d5	68.2	20.8-123		%REC	1	7/26/2012 8:04:37 PM
Surr: Phenol-d5	62.0	19.8-115		%REC	1	7/26/2012 8:04:37 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Toluene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Ethylbenzene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Xylenes, Total	ND	2.78		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Methyl tert-butyl ether (MTBE)	ND	1.85		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,2,4-Trimethylbenzene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,3,5-Trimethylbenzene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,2-Dichloroethane (EDC)	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,2-Dibromoethane (EDB)	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Naphthalene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1-Methylnaphthalene	ND	3.70		µg/Kg-dry	1	7/26/2012 6:34:57 PM
2-Methylnaphthalene	ND	3.70		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Acetone	ND	27.8		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Bromobenzene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Bromodichloromethane	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Bromoform	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
2-Butanone	ND	4.63		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Carbon tetrachloride	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Chlorobenzene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Chloroethane	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Chloroform	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-4 (19.5-20')
Collection Date: 7/17/2012 2:15:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
2-Chlorotoluene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Carbon disulfide	ND	4.63		µg/Kg-dry	1	7/26/2012 6:34:57 PM
4-Chlorotoluene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
cis-1,2-DCE	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
cis-1,3-Dichloropropene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,2-Dibromo-3-chloropropane	ND	1.85		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Dibromochloromethane	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Dibromomethane	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,2-Dichlorobenzene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,3-Dichlorobenzene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,4-Dichlorobenzene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Dichlorodifluoromethane	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,1-Dichloroethane	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,1-Dichloroethene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,2-Dichloropropane	ND	1.85		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,3-Dichloropropane	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
2,2-Dichloropropane	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,1-Dichloropropene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Hexachlorobutadiene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Isopropylbenzene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
4-Isopropyltoluene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Methylene chloride	ND	4.63		µg/Kg-dry	1	7/26/2012 6:34:57 PM
n-Butylbenzene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
2-Hexanone	ND	4.63		µg/Kg-dry	1	7/26/2012 6:34:57 PM
n-Propylbenzene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
sec-Butylbenzene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Styrene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
4-Methyl-2-pentanone	ND	4.63		µg/Kg-dry	1	7/26/2012 6:34:57 PM
tert-Butylbenzene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,1,1,2-Tetrachloroethane	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,1,2,2-Tetrachloroethane	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Tetrachloroethene (PCE)	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
trans-1,2-DCE	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
trans-1,3-Dichloropropene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,2,3-Trichlorobenzene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,2,4-Trichlorobenzene	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,1,1-Trichloroethane	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,1,2-Trichloroethane	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Trichloroethene (TCE)	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Trichlorofluoromethane	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
1,2,3-Trichloropropane	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-4 (19.5-20')
Collection Date: 7/17/2012 2:15:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.925		µg/Kg-dry	1	7/26/2012 6:34:57 PM
Surr: 1,2-Dichloroethane-d4	97.3	70-130		%REC	1	7/26/2012 6:34:57 PM
Surr: 4-Bromofluorobenzene	91.3	70-130		%REC	1	7/26/2012 6:34:57 PM
Surr: Dibromofluoromethane	91.2	70-130		%REC	1	7/26/2012 6:34:57 PM
Surr: Toluene-d8	94.2	70-130		%REC	1	7/26/2012 6:34:57 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (0-0.5')
Collection Date: 7/17/2012 4:10:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	53	9.9		mg/Kg	1	7/23/2012 9:05:34 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/23/2012 9:05:34 AM
Surr: DNOP	111	77.6-140		%REC	1	7/23/2012 9:05:34 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	10		mg/Kg	2	7/25/2012 11:57:16 PM
Surr: BFB	101	84-116		%REC	2	7/25/2012 11:57:16 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/3/2012 3:48:57 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	13		mg/Kg	5	8/10/2012 5:33:46 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 6:12:43 PM
Barium	700	2.0		mg/Kg	20	8/8/2012 11:28:59 AM
Beryllium	ND	0.75		mg/Kg	5	8/5/2012 6:12:43 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 6:12:43 PM
Chromium	8.8	1.5		mg/Kg	5	8/5/2012 6:12:43 PM
Cobalt	4.4	1.5		mg/Kg	5	8/5/2012 6:12:43 PM
Iron	14000	500		mg/Kg	500	8/8/2012 11:31:24 AM
Lead	3.3	1.2		mg/Kg	5	8/5/2012 6:12:43 PM
Manganese	510	2.0		mg/Kg	20	8/8/2012 11:28:59 AM
Nickel	6.2	2.5		mg/Kg	5	8/5/2012 6:12:43 PM
Selenium	ND	12		mg/Kg	5	8/8/2012 11:55:49 AM
Silver	ND	1.2		mg/Kg	5	8/5/2012 6:12:43 PM
Vanadium	31	12		mg/Kg	5	8/8/2012 11:55:49 AM
Zinc	17	13		mg/Kg	5	8/10/2012 5:33:46 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Acenaphthylene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Aniline	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Anthracene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Azobenzene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Benzoic acid	ND	0.50		mg/Kg	1	7/26/2012 8:34:24 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-2 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/17/2012 4:10:00 PM
Lab ID: 1207917-005 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/26/2012 8:34:24 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Carbazole	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/26/2012 8:34:24 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	7/26/2012 8:34:24 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/26/2012 8:34:24 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Chrysene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/26/2012 8:34:24 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	7/26/2012 8:34:24 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Dibenzofuran	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/26/2012 8:34:24 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/26/2012 8:34:24 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/26/2012 8:34:24 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/26/2012 8:34:24 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/26/2012 8:34:24 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/26/2012 8:34:24 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/26/2012 8:34:24 PM
Fluoranthene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Fluorene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Hexachloroethane	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Isophorone	ND	0.50		mg/Kg	1	7/26/2012 8:34:24 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
2-Methylphenol	ND	0.50		mg/Kg	1	7/26/2012 8:34:24 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Naphthalene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (0-0.5')
Collection Date: 7/17/2012 4:10:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	7/26/2012 8:34:24 PM
Nitrobenzene	ND	0.50		mg/Kg	1	7/26/2012 8:34:24 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	7/26/2012 8:34:24 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	7/26/2012 8:34:24 PM
Phenanthrene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Phenol	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Pyrene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Pyridine	ND	0.50		mg/Kg	1	7/26/2012 8:34:24 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/26/2012 8:34:24 PM
Surr: 2,4,6-Tribromophenol	95.3	20.1-121		%REC	1	7/26/2012 8:34:24 PM
Surr: 2-Fluorobiphenyl	86.2	19-133		%REC	1	7/26/2012 8:34:24 PM
Surr: 2-Fluorophenol	68.8	20.2-108		%REC	1	7/26/2012 8:34:24 PM
Surr: 4-Terphenyl-d14	87.7	18.9-115		%REC	1	7/26/2012 8:34:24 PM
Surr: Nitrobenzene-d5	79.1	20.8-123		%REC	1	7/26/2012 8:34:24 PM
Surr: Phenol-d5	74.2	19.8-115		%REC	1	7/26/2012 8:34:24 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
Toluene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
Naphthalene	ND	0.10		mg/Kg	1	7/21/2012 5:04:07 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/21/2012 5:04:07 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/21/2012 5:04:07 PM
Acetone	ND	0.75		mg/Kg	1	7/21/2012 5:04:07 PM
Bromobenzene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
Bromoform	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
Bromomethane	ND	0.15		mg/Kg	1	7/21/2012 5:04:07 PM
2-Butanone	ND	0.50		mg/Kg	1	7/21/2012 5:04:07 PM
Carbon disulfide	ND	0.50		mg/Kg	1	7/21/2012 5:04:07 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	7/21/2012 5:04:07 PM
Chlorobenzene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
Chloroethane	ND	0.10		mg/Kg	1	7/21/2012 5:04:07 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (0-0.5')
Collection Date: 7/17/2012 4:10:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Chloroform	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
Chloromethane	ND	0.15		mg/Kg	1	7/21/2012 5:04:07 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	7/21/2012 5:04:07 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
Dibromomethane	ND	0.10		mg/Kg	1	7/21/2012 5:04:07 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	7/21/2012 5:04:07 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	7/21/2012 5:04:07 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	7/21/2012 5:04:07 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	7/21/2012 5:04:07 PM
2-Hexanone	ND	0.50		mg/Kg	1	7/21/2012 5:04:07 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	7/21/2012 5:04:07 PM
Methylene chloride	ND	0.15		mg/Kg	1	7/21/2012 5:04:07 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
Styrene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	7/21/2012 5:04:07 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	7/21/2012 5:04:07 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (0-0.5')
Collection Date: 7/17/2012 4:10:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	0.050		mg/Kg	1	7/21/2012 5:04:07 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/21/2012 5:04:07 PM
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	1	7/21/2012 5:04:07 PM
Surr: 4-Bromofluorobenzene	87.2	70-130		%REC	1	7/21/2012 5:04:07 PM
Surr: Dibromofluoromethane	91.3	70-130		%REC	1	7/21/2012 5:04:07 PM
Surr: Toluene-d8	96.2	70-130		%REC	1	7/21/2012 5:04:07 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-2 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/17/2012 4:24:00 PM
Lab ID: 1207917-006 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	6200	200		mg/Kg	20	7/23/2012 8:24:32 AM
Motor Oil Range Organics (MRO)	ND	980		mg/Kg	20	7/23/2012 8:24:32 AM
Surr: DNOP	0	77.6-140	S	%REC	20	7/23/2012 8:24:32 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	7/26/2012 12:25:59 AM
Surr: BFB	104	84-116		%REC	50	7/26/2012 12:25:59 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/3/2012 3:50:44 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	13		mg/Kg	5	8/10/2012 5:43:48 PM
Arsenic	ND	13		mg/Kg	5	8/10/2012 5:43:48 PM
Barium	470	5.0		mg/Kg	50	8/10/2012 6:04:10 PM
Beryllium	0.76	0.75		mg/Kg	5	8/10/2012 5:43:48 PM
Cadmium	ND	0.50		mg/Kg	5	8/10/2012 5:43:48 PM
Chromium	12	1.5		mg/Kg	5	8/10/2012 5:43:48 PM
Cobalt	3.8	1.5		mg/Kg	5	8/10/2012 5:43:48 PM
Iron	11000	500		mg/Kg	500	8/10/2012 6:06:36 PM
Lead	4.4	1.3		mg/Kg	5	8/10/2012 5:43:48 PM
Manganese	530	5.0		mg/Kg	50	8/10/2012 6:04:10 PM
Nickel	7.3	2.5		mg/Kg	5	8/10/2012 5:43:48 PM
Selenium	ND	13		mg/Kg	5	8/10/2012 5:43:48 PM
Silver	ND	1.3		mg/Kg	5	8/10/2012 5:43:48 PM
Vanadium	21	13		mg/Kg	5	8/10/2012 5:43:48 PM
Zinc	35	13		mg/Kg	5	8/10/2012 5:43:48 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Aniline	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Anthracene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Azobenzene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/26/2012 9:04:09 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-2 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/17/2012 4:24:00 PM
Lab ID: 1207917-006
Matrix: SOIL
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/26/2012 9:04:09 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Carbazole	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/26/2012 9:04:09 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/26/2012 9:04:09 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/26/2012 9:04:09 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Chrysene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/26/2012 9:04:09 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/26/2012 9:04:09 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/26/2012 9:04:09 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/26/2012 9:04:09 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/26/2012 9:04:09 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/26/2012 9:04:09 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/26/2012 9:04:09 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/26/2012 9:04:09 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/26/2012 9:04:09 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Fluorene	1.8	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Isophorone	ND	2.5		mg/Kg	1	7/26/2012 9:04:09 PM
1-Methylnaphthalene	5.9	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
2-Methylnaphthalene	6.4	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/26/2012 9:04:09 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Naphthalene	1.0	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-006 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (1.5-2.0')
Collection Date: 7/17/2012 4:24:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/26/2012 9:04:09 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/26/2012 9:04:09 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/26/2012 9:04:09 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/26/2012 9:04:09 PM
Phenanthrene	3.2	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Phenol	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Pyrene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Pyridine	ND	2.5		mg/Kg	1	7/26/2012 9:04:09 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/26/2012 9:04:09 PM
Surr: 2,4,6-Tribromophenol	98.5	20.1-121		%REC	1	7/26/2012 9:04:09 PM
Surr: 2-Fluorobiphenyl	87.9	19-133		%REC	1	7/26/2012 9:04:09 PM
Surr: 2-Fluorophenol	99.2	20.2-108		%REC	1	7/26/2012 9:04:09 PM
Surr: 4-Terphenyl-d14	93.9	18.9-115		%REC	1	7/26/2012 9:04:09 PM
Surr: Nitrobenzene-d5	111	20.8-123		%REC	1	7/26/2012 9:04:09 PM
Surr: Phenol-d5	96.0	19.8-115		%REC	1	7/26/2012 9:04:09 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
Toluene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
Ethylbenzene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,2,4-Trimethylbenzene	1.8	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,3,5-Trimethylbenzene	1.1	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
Naphthalene	ND	2.0		mg/Kg	20	7/23/2012 5:28:47 PM
1-Methylnaphthalene	4.7	4.0		mg/Kg	20	7/23/2012 5:28:47 PM
2-Methylnaphthalene	5.6	4.0		mg/Kg	20	7/23/2012 5:28:47 PM
Acetone	ND	15		mg/Kg	20	7/23/2012 5:28:47 PM
Bromobenzene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
Bromoform	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
Bromomethane	ND	3.0		mg/Kg	20	7/23/2012 5:28:47 PM
2-Butanone	ND	10		mg/Kg	20	7/23/2012 5:28:47 PM
Carbon disulfide	ND	10		mg/Kg	20	7/23/2012 5:28:47 PM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/23/2012 5:28:47 PM
Chlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
Chloroethane	ND	2.0		mg/Kg	20	7/23/2012 5:28:47 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-2 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/17/2012 4:24:00 PM
Lab ID: 1207917-006
Matrix: SOIL
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
Chloromethane	ND	3.0		mg/Kg	20	7/23/2012 5:28:47 PM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/23/2012 5:28:47 PM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
Dibromomethane	ND	2.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/23/2012 5:28:47 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/23/2012 5:28:47 PM
2-Hexanone	ND	10		mg/Kg	20	7/23/2012 5:28:47 PM
Isopropylbenzene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
4-Isopropyltoluene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/23/2012 5:28:47 PM
Methylene chloride	ND	3.0		mg/Kg	20	7/23/2012 5:28:47 PM
n-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
n-Propylbenzene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
sec-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
Styrene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,1,2-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/23/2012 5:28:47 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-006 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (1.5-2.0')
Collection Date: 7/17/2012 4:24:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	1.0		mg/Kg	20	7/23/2012 5:28:47 PM
Xylenes, Total	ND	2.0		mg/Kg	20	7/23/2012 5:28:47 PM
Surr: 1,2-Dichloroethane-d4	97.5	70-130		%REC	20	7/23/2012 5:28:47 PM
Surr: 4-Bromofluorobenzene	72.3	70-130		%REC	20	7/23/2012 5:28:47 PM
Surr: Dibromofluoromethane	108	70-130		%REC	20	7/23/2012 5:28:47 PM
Surr: Toluene-d8	100	70-130		%REC	20	7/23/2012 5:28:47 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-007 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (8-10')
Collection Date: 7/17/2012 4:45:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	3300	190		mg/Kg	20	7/23/2012 11:19:26 AM
Motor Oil Range Organics (MRO)	ND	970		mg/Kg	20	7/23/2012 11:19:26 AM
Surr: DNOP	0	77.6-140	S	%REC	20	7/23/2012 11:19:26 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	7/26/2012 12:54:47 AM
Surr: BFB	106	84-116		%REC	50	7/26/2012 12:54:47 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.29	0.033		mg/Kg	1	8/3/2012 3:52:30 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	2.5		mg/Kg	1	8/10/2012 8:35:35 PM
Arsenic	ND	2.5		mg/Kg	1	8/10/2012 8:35:35 PM
Barium	400	5.0		mg/Kg	50	8/10/2012 6:11:40 PM
Beryllium	0.58	0.15		mg/Kg	1	8/10/2012 8:35:35 PM
Cadmium	ND	0.10		mg/Kg	1	8/10/2012 8:35:35 PM
Chromium	76	1.5		mg/Kg	5	8/10/2012 6:09:14 PM
Cobalt	3.7	0.30		mg/Kg	1	8/10/2012 8:35:35 PM
Iron	14000	500		mg/Kg	500	8/10/2012 6:14:05 PM
Lead	4.6	0.25		mg/Kg	1	8/10/2012 8:35:35 PM
Manganese	400	5.0		mg/Kg	50	8/10/2012 6:11:40 PM
Nickel	6.6	0.50		mg/Kg	1	8/10/2012 8:35:35 PM
Selenium	ND	2.5		mg/Kg	1	8/10/2012 8:35:35 PM
Silver	ND	0.25		mg/Kg	1	8/10/2012 8:35:35 PM
Vanadium	20	2.5		mg/Kg	1	8/10/2012 8:35:35 PM
Zinc	37	2.5		mg/Kg	1	8/10/2012 8:35:35 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Aniline	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Anthracene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Azobenzene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/26/2012 9:33:54 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-007 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (8-10')
Collection Date: 7/17/2012 4:45:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/26/2012 9:33:54 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Carbazole	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/26/2012 9:33:54 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/26/2012 9:33:54 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/26/2012 9:33:54 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Chrysene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/26/2012 9:33:54 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/26/2012 9:33:54 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/26/2012 9:33:54 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/26/2012 9:33:54 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/26/2012 9:33:54 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/26/2012 9:33:54 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/26/2012 9:33:54 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/26/2012 9:33:54 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/26/2012 9:33:54 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Fluorene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Isophorone	ND	2.5		mg/Kg	1	7/26/2012 9:33:54 PM
1-Methylnaphthalene	16	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
2-Methylnaphthalene	16	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/26/2012 9:33:54 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Naphthalene	2.5	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-2 (8-10')
Project: SWMU NO.14
Collection Date: 7/17/2012 4:45:00 PM
Lab ID: 1207917-007
Matrix: SOIL
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/26/2012 9:33:54 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/26/2012 9:33:54 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/26/2012 9:33:54 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/26/2012 9:33:54 PM
Phenanthrene	3.0	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Phenol	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Pyrene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Pyridine	ND	2.5		mg/Kg	1	7/26/2012 9:33:54 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/26/2012 9:33:54 PM
Surr: 2,4,6-Tribromophenol	79.6	20.1-121		%REC	1	7/26/2012 9:33:54 PM
Surr: 2-Fluorobiphenyl	93.4	19-133		%REC	1	7/26/2012 9:33:54 PM
Surr: 2-Fluorophenol	91.3	20.2-108		%REC	1	7/26/2012 9:33:54 PM
Surr: 4-Terphenyl-d14	101	18.9-115		%REC	1	7/26/2012 9:33:54 PM
Surr: Nitrobenzene-d5	103	20.8-123		%REC	1	7/26/2012 9:33:54 PM
Surr: Phenol-d5	85.4	19.8-115		%REC	1	7/26/2012 9:33:54 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
Toluene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
Ethylbenzene	1.1	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,2,4-Trimethylbenzene	6.2	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,3,5-Trimethylbenzene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
Naphthalene	3.0	2.0		mg/Kg	20	7/23/2012 6:25:15 PM
1-Methylnaphthalene	16	4.0		mg/Kg	20	7/23/2012 6:25:15 PM
2-Methylnaphthalene	17	4.0		mg/Kg	20	7/23/2012 6:25:15 PM
Acetone	ND	15		mg/Kg	20	7/23/2012 6:25:15 PM
Bromobenzene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
Bromoform	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
Bromomethane	ND	3.0		mg/Kg	20	7/23/2012 6:25:15 PM
2-Butanone	ND	10		mg/Kg	20	7/23/2012 6:25:15 PM
Carbon disulfide	ND	10		mg/Kg	20	7/23/2012 6:25:15 PM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/23/2012 6:25:15 PM
Chlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
Chloroethane	ND	2.0		mg/Kg	20	7/23/2012 6:25:15 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-2 (8-10')
Project: SWMU NO.14
Collection Date: 7/17/2012 4:45:00 PM
Lab ID: 1207917-007
Matrix: SOIL
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
Chloromethane	ND	3.0		mg/Kg	20	7/23/2012 6:25:15 PM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/23/2012 6:25:15 PM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
Dibromomethane	ND	2.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/23/2012 6:25:15 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/23/2012 6:25:15 PM
2-Hexanone	ND	10		mg/Kg	20	7/23/2012 6:25:15 PM
Isopropylbenzene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
4-Isopropyltoluene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/23/2012 6:25:15 PM
Methylene chloride	ND	3.0		mg/Kg	20	7/23/2012 6:25:15 PM
n-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
n-Propylbenzene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
sec-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
Styrene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,1,2-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/23/2012 6:25:15 PM

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-2 (8-10')
Project: SWMU NO.14
Collection Date: 7/17/2012 4:45:00 PM
Lab ID: 1207917-007
Matrix: SOIL
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	1.0		mg/Kg	20	7/23/2012 6:25:15 PM
Xylenes, Total	ND	2.0		mg/Kg	20	7/23/2012 6:25:15 PM
Surr: 1,2-Dichloroethane-d4	98.5	70-130		%REC	20	7/23/2012 6:25:15 PM
Surr: 4-Bromofluorobenzene	86.1	70-130		%REC	20	7/23/2012 6:25:15 PM
Surr: Dibromofluoromethane	110	70-130		%REC	20	7/23/2012 6:25:15 PM
Surr: Toluene-d8	101	70-130		%REC	20	7/23/2012 6:25:15 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-008 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (8-10') Dup
Collection Date: 7/17/2012 4:45:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	11000	510		mg/Kg	50	7/23/2012 1:31:08 PM
Motor Oil Range Organics (MRO)	ND	2600		mg/Kg	50	7/23/2012 1:31:08 PM
Surr: DNOP	0	77.6-140	S	%REC	50	7/23/2012 1:31:08 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	500		mg/Kg	100	7/26/2012 1:23:27 AM
Surr: BFB	102	84-116		%REC	100	7/26/2012 1:23:27 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	1.5	0.16		mg/Kg	5	8/3/2012 4:06:38 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	2.5		mg/Kg	1	8/10/2012 8:38:21 PM
Arsenic	ND	2.5		mg/Kg	1	8/10/2012 8:38:21 PM
Barium	400	5.0		mg/Kg	50	8/10/2012 6:19:10 PM
Beryllium	0.70	0.15		mg/Kg	1	8/10/2012 8:38:21 PM
Cadmium	ND	0.10		mg/Kg	1	8/10/2012 8:38:21 PM
Chromium	97	1.5		mg/Kg	5	8/10/2012 6:16:43 PM
Cobalt	4.2	0.30		mg/Kg	1	8/10/2012 8:38:21 PM
Iron	16000	500		mg/Kg	500	8/10/2012 6:21:37 PM
Lead	5.7	0.25		mg/Kg	1	8/10/2012 8:38:21 PM
Manganese	330	5.0		mg/Kg	50	8/10/2012 6:19:10 PM
Nickel	7.5	0.50		mg/Kg	1	8/10/2012 8:38:21 PM
Selenium	ND	2.5		mg/Kg	1	8/10/2012 8:38:21 PM
Silver	ND	0.25		mg/Kg	1	8/10/2012 8:38:21 PM
Vanadium	23	2.5		mg/Kg	1	8/10/2012 8:38:21 PM
Zinc	64	12		mg/Kg	5	8/10/2012 6:16:43 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Acenaphthylene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Aniline	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Anthracene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Azobenzene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Benzoic acid	ND	2.5		mg/Kg	1	7/27/2012 8:24:10 AM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-008 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (8-10') Dup
Collection Date: 7/17/2012 4:45:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/27/2012 8:24:10 AM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Carbazole	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 8:24:10 AM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/27/2012 8:24:10 AM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/27/2012 8:24:10 AM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Chrysene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/27/2012 8:24:10 AM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/27/2012 8:24:10 AM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Dibenzofuran	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/27/2012 8:24:10 AM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/27/2012 8:24:10 AM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/27/2012 8:24:10 AM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 8:24:10 AM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/27/2012 8:24:10 AM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 8:24:10 AM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 8:24:10 AM
Fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Fluorene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Hexachloroethane	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Isophorone	ND	2.5		mg/Kg	1	7/27/2012 8:24:10 AM
1-Methylnaphthalene	19	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
2-Methylnaphthalene	20	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
2-Methylphenol	ND	2.5		mg/Kg	1	7/27/2012 8:24:10 AM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Naphthalene	3.1	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-008 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (8-10') Dup
Collection Date: 7/17/2012 4:45:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
3-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/27/2012 8:24:10 AM
Nitrobenzene	ND	2.5		mg/Kg	1	7/27/2012 8:24:10 AM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/27/2012 8:24:10 AM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/27/2012 8:24:10 AM
Phenanthrene	3.3	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Phenol	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Pyrene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Pyridine	ND	2.5		mg/Kg	1	7/27/2012 8:24:10 AM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 8:24:10 AM
Surr: 2,4,6-Tribromophenol	71.8	20.1-121		%REC	1	7/27/2012 8:24:10 AM
Surr: 2-Fluorobiphenyl	81.5	19-133		%REC	1	7/27/2012 8:24:10 AM
Surr: 2-Fluorophenol	94.0	20.2-108		%REC	1	7/27/2012 8:24:10 AM
Surr: 4-Terphenyl-d14	99.6	18.9-115		%REC	1	7/27/2012 8:24:10 AM
Surr: Nitrobenzene-d5	0	20.8-123	S	%REC	1	7/27/2012 8:24:10 AM
Surr: Phenol-d5	92.1	19.8-115		%REC	1	7/27/2012 8:24:10 AM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
Toluene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
Ethylbenzene	1.0	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,2,4-Trimethylbenzene	5.4	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,3,5-Trimethylbenzene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
Naphthalene	2.9	2.0		mg/Kg	20	7/23/2012 7:21:44 PM
1-Methylnaphthalene	15	4.0		mg/Kg	20	7/23/2012 7:21:44 PM
2-Methylnaphthalene	17	4.0		mg/Kg	20	7/23/2012 7:21:44 PM
Acetone	ND	15		mg/Kg	20	7/23/2012 7:21:44 PM
Bromobenzene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
Bromoform	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
Bromomethane	ND	3.0		mg/Kg	20	7/23/2012 7:21:44 PM
2-Butanone	ND	10		mg/Kg	20	7/23/2012 7:21:44 PM
Carbon disulfide	ND	10		mg/Kg	20	7/23/2012 7:21:44 PM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/23/2012 7:21:44 PM
Chlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
Chloroethane	ND	2.0		mg/Kg	20	7/23/2012 7:21:44 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

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Project: SWMU NO.14
Lab ID: 1207917-008 **Matrix:** SOIL

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Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
Chloromethane	ND	3.0		mg/Kg	20	7/23/2012 7:21:44 PM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/23/2012 7:21:44 PM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
Dibromomethane	ND	2.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/23/2012 7:21:44 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/23/2012 7:21:44 PM
2-Hexanone	ND	10		mg/Kg	20	7/23/2012 7:21:44 PM
Isopropylbenzene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
4-Isopropyltoluene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/23/2012 7:21:44 PM
Methylene chloride	ND	3.0		mg/Kg	20	7/23/2012 7:21:44 PM
n-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
n-Propylbenzene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
sec-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
Styrene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,1,2-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/23/2012 7:21:44 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-008 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (8-10') Dup
Collection Date: 7/17/2012 4:45:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	1.0		mg/Kg	20	7/23/2012 7:21:44 PM
Xylenes, Total	ND	2.0		mg/Kg	20	7/23/2012 7:21:44 PM
Surr: 1,2-Dichloroethane-d4	92.5	70-130		%REC	20	7/23/2012 7:21:44 PM
Surr: 4-Bromofluorobenzene	83.4	70-130		%REC	20	7/23/2012 7:21:44 PM
Surr: Dibromofluoromethane	101	70-130		%REC	20	7/23/2012 7:21:44 PM
Surr: Toluene-d8	103	70-130		%REC	20	7/23/2012 7:21:44 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-009 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (16-18')
Collection Date: 7/17/2012 5:10:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	34	9.6		mg/Kg	1	7/23/2012 9:30:58 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/23/2012 9:30:58 AM
Surr: DNOP	109	77.6-140		%REC	1	7/23/2012 9:30:58 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/26/2012 1:52:09 AM
Surr: BFB	98.9	84-116		%REC	1	7/26/2012 1:52:09 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/3/2012 3:57:44 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	13		mg/Kg	5	8/10/2012 6:32:52 PM
Arsenic	ND	13		mg/Kg	5	8/10/2012 6:32:52 PM
Barium	520	5.0		mg/Kg	50	8/10/2012 6:36:56 PM
Beryllium	1.3	0.75		mg/Kg	5	8/10/2012 6:32:52 PM
Cadmium	ND	0.50		mg/Kg	5	8/10/2012 6:32:52 PM
Chromium	18	1.5		mg/Kg	5	8/10/2012 6:32:52 PM
Cobalt	7.2	1.5		mg/Kg	5	8/10/2012 6:32:52 PM
Iron	26000	1000		mg/Kg	1000	8/15/2012 7:08:47 AM
Lead	ND	1.3		mg/Kg	5	8/10/2012 6:32:52 PM
Manganese	1100	5.0		mg/Kg	50	8/10/2012 6:36:56 PM
Nickel	16	2.5		mg/Kg	5	8/10/2012 6:32:52 PM
Selenium	ND	13		mg/Kg	5	8/10/2012 6:32:52 PM
Silver	ND	1.3		mg/Kg	5	8/10/2012 6:32:52 PM
Vanadium	22	13		mg/Kg	5	8/10/2012 6:32:52 PM
Zinc	26	13		mg/Kg	5	8/10/2012 6:32:52 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Acenaphthylene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Aniline	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Anthracene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Azobenzene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Benzoic acid	ND	0.50		mg/Kg	1	7/27/2012 8:53:35 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM

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- H Holding times for preparation or analysis exceeded
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- RL Reporting Detection Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-009 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (16-18')
Collection Date: 7/17/2012 5:10:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/27/2012 8:53:35 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Carbazole	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/27/2012 8:53:35 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	7/27/2012 8:53:35 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/27/2012 8:53:35 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Chrysene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/27/2012 8:53:35 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	7/27/2012 8:53:35 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Dibenzofuran	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/27/2012 8:53:35 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 8:53:35 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/27/2012 8:53:35 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/27/2012 8:53:35 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/27/2012 8:53:35 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/27/2012 8:53:35 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/27/2012 8:53:35 AM
Fluoranthene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Fluorene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Hexachloroethane	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Isophorone	ND	0.50		mg/Kg	1	7/27/2012 8:53:35 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
2-Methylphenol	ND	0.50		mg/Kg	1	7/27/2012 8:53:35 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Naphthalene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-009 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (16-18')
Collection Date: 7/17/2012 5:10:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 8:53:35 AM
Nitrobenzene	ND	0.50		mg/Kg	1	7/27/2012 8:53:35 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	7/27/2012 8:53:35 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	7/27/2012 8:53:35 AM
Phenanthrene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Phenol	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Pyrene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Pyridine	ND	0.50		mg/Kg	1	7/27/2012 8:53:35 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/27/2012 8:53:35 AM
Surr: 2,4,6-Tribromophenol	101	20.1-121		%REC	1	7/27/2012 8:53:35 AM
Surr: 2-Fluorobiphenyl	79.0	19-133		%REC	1	7/27/2012 8:53:35 AM
Surr: 2-Fluorophenol	79.7	20.2-108		%REC	1	7/27/2012 8:53:35 AM
Surr: 4-Terphenyl-d14	78.9	18.9-115		%REC	1	7/27/2012 8:53:35 AM
Surr: Nitrobenzene-d5	78.7	20.8-123		%REC	1	7/27/2012 8:53:35 AM
Surr: Phenol-d5	88.5	19.8-115		%REC	1	7/27/2012 8:53:35 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Toluene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Ethylbenzene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Xylenes, Total	ND	3.08		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Methyl tert-butyl ether (MTBE)	ND	2.05		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,2,4-Trimethylbenzene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,3,5-Trimethylbenzene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,2-Dichloroethane (EDC)	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,2-Dibromoethane (EDB)	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Naphthalene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1-Methylnaphthalene	ND	4.11		µg/Kg-dry	1	7/26/2012 7:02:39 PM
2-Methylnaphthalene	ND	4.11		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Acetone	ND	30.8		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Bromobenzene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Bromodichloromethane	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Bromoform	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
2-Butanone	ND	5.14		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Carbon tetrachloride	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Chlorobenzene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Chloroethane	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Chloroform	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-009 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (16-18')
Collection Date: 7/17/2012 5:10:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
2-Chlorotoluene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Carbon disulfide	ND	5.14		µg/Kg-dry	1	7/26/2012 7:02:39 PM
4-Chlorotoluene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
cis-1,2-DCE	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
cis-1,3-Dichloropropene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,2-Dibromo-3-chloropropane	ND	2.05		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Dibromochloromethane	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Dibromomethane	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,2-Dichlorobenzene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,3-Dichlorobenzene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,4-Dichlorobenzene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Dichlorodifluoromethane	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,1-Dichloroethane	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,1-Dichloroethene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,2-Dichloropropane	ND	2.05		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,3-Dichloropropane	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
2,2-Dichloropropane	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,1-Dichloropropene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Hexachlorobutadiene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Isopropylbenzene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
4-Isopropyltoluene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Methylene chloride	ND	5.14		µg/Kg-dry	1	7/26/2012 7:02:39 PM
n-Butylbenzene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
2-Hexanone	ND	5.14		µg/Kg-dry	1	7/26/2012 7:02:39 PM
n-Propylbenzene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
sec-Butylbenzene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Styrene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
4-Methyl-2-pentanone	ND	5.14		µg/Kg-dry	1	7/26/2012 7:02:39 PM
tert-Butylbenzene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,1,1,2-Tetrachloroethane	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,1,2,2-Tetrachloroethane	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Tetrachloroethene (PCE)	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
trans-1,2-DCE	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
trans-1,3-Dichloropropene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,2,3-Trichlorobenzene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,2,4-Trichlorobenzene	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,1,1-Trichloroethane	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,1,2-Trichloroethane	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Trichloroethene (TCE)	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Trichlorofluoromethane	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
1,2,3-Trichloropropane	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-009 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (16-18')
Collection Date: 7/17/2012 5:10:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	1.03		µg/Kg-dry	1	7/26/2012 7:02:39 PM
Surr: 1,2-Dichloroethane-d4	132	70-130	S	%REC	1	7/26/2012 7:02:39 PM
Surr: 4-Bromofluorobenzene	86.5	70-130		%REC	1	7/26/2012 7:02:39 PM
Surr: Dibromofluoromethane	66.9	70-130	S	%REC	1	7/26/2012 7:02:39 PM
Surr: Toluene-d8	91.0	70-130		%REC	1	7/26/2012 7:02:39 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-010 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (24-25')
Collection Date: 7/17/2012 5:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/22/2012 5:32:53 PM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	7/22/2012 5:32:53 PM
Surr: DNOP	112	77.6-140		%REC	1	7/22/2012 5:32:53 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/26/2012 2:20:49 AM
Surr: BFB	99.9	84-116		%REC	1	7/26/2012 2:20:49 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/3/2012 4:08:26 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	13		mg/Kg	5	8/10/2012 6:41:43 PM
Arsenic	ND	13		mg/Kg	5	8/10/2012 6:41:43 PM
Barium	460	5.0		mg/Kg	50	8/10/2012 6:44:11 PM
Beryllium	1.1	0.75		mg/Kg	5	8/10/2012 6:41:43 PM
Cadmium	ND	0.50		mg/Kg	5	8/10/2012 6:41:43 PM
Chromium	18	1.5		mg/Kg	5	8/10/2012 6:41:43 PM
Cobalt	9.7	1.5		mg/Kg	5	8/10/2012 6:41:43 PM
Iron	19000	500		mg/Kg	500	8/10/2012 6:46:36 PM
Lead	ND	1.3		mg/Kg	5	8/10/2012 6:41:43 PM
Manganese	980	5.0		mg/Kg	50	8/10/2012 6:44:11 PM
Nickel	17	2.5		mg/Kg	5	8/10/2012 6:41:43 PM
Selenium	ND	13		mg/Kg	5	8/10/2012 6:41:43 PM
Silver	ND	1.3		mg/Kg	5	8/10/2012 6:41:43 PM
Vanadium	52	13		mg/Kg	5	8/10/2012 6:41:43 PM
Zinc	31	13		mg/Kg	5	8/10/2012 6:41:43 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Acenaphthylene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Aniline	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Anthracene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Azobenzene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Benzoic acid	ND	0.50		mg/Kg	1	7/27/2012 9:23:05 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-010 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (24-25')
Collection Date: 7/17/2012 5:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/27/2012 9:23:05 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Carbazole	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/27/2012 9:23:05 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	7/27/2012 9:23:05 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/27/2012 9:23:05 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Chrysene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/27/2012 9:23:05 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	7/27/2012 9:23:05 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Dibenzofuran	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/27/2012 9:23:05 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 9:23:05 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/27/2012 9:23:05 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/27/2012 9:23:05 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/27/2012 9:23:05 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/27/2012 9:23:05 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/27/2012 9:23:05 AM
Fluoranthene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Fluorene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Hexachloroethane	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Isophorone	ND	0.50		mg/Kg	1	7/27/2012 9:23:05 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
2-Methylphenol	ND	0.50		mg/Kg	1	7/27/2012 9:23:05 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Naphthalene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-010 **Matrix:** SOIL

Client Sample ID: SWMU 14-2 (24-25')
Collection Date: 7/17/2012 5:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 9:23:05 AM
Nitrobenzene	ND	0.50		mg/Kg	1	7/27/2012 9:23:05 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	7/27/2012 9:23:05 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	7/27/2012 9:23:05 AM
Phenanthrene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Phenol	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Pyrene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Pyridine	ND	0.50		mg/Kg	1	7/27/2012 9:23:05 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/27/2012 9:23:05 AM
Surr: 2,4,6-Tribromophenol	93.3	20.1-121		%REC	1	7/27/2012 9:23:05 AM
Surr: 2-Fluorobiphenyl	89.4	19-133		%REC	1	7/27/2012 9:23:05 AM
Surr: 2-Fluorophenol	81.6	20.2-108		%REC	1	7/27/2012 9:23:05 AM
Surr: 4-Terphenyl-d14	81.1	18.9-115		%REC	1	7/27/2012 9:23:05 AM
Surr: Nitrobenzene-d5	89.6	20.8-123		%REC	1	7/27/2012 9:23:05 AM
Surr: Phenol-d5	89.1	19.8-115		%REC	1	7/27/2012 9:23:05 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Toluene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Ethylbenzene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Xylenes, Total	ND	2.97		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Methyl tert-butyl ether (MTBE)	ND	1.98		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,2,4-Trimethylbenzene	11.0	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,3,5-Trimethylbenzene	1.12	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,2-Dichloroethane (EDC)	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,2-Dibromoethane (EDB)	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Naphthalene	3.34	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1-Methylnaphthalene	25.0	3.95		µg/Kg-dry	1	7/26/2012 7:30:13 PM
2-Methylnaphthalene	19.7	3.95		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Acetone	ND	29.7		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Bromobenzene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Bromodichloromethane	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Bromoform	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
2-Butanone	ND	4.94		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Carbon tetrachloride	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Chlorobenzene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Chloroethane	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Chloroform	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-2 (24-25')
Project: SWMU NO.14
Collection Date: 7/17/2012 5:30:00 PM
Lab ID: 1207917-010 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
2-Chlorotoluene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Carbon disulfide	ND	4.94		µg/Kg-dry	1	7/26/2012 7:30:13 PM
4-Chlorotoluene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
cis-1,2-DCE	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
cis-1,3-Dichloropropene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,2-Dibromo-3-chloropropane	ND	1.98		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Dibromochloromethane	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Dibromomethane	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,2-Dichlorobenzene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,3-Dichlorobenzene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,4-Dichlorobenzene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Dichlorodifluoromethane	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,1-Dichloroethane	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,1-Dichloroethene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,2-Dichloropropane	ND	1.98		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,3-Dichloropropane	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
2,2-Dichloropropane	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,1-Dichloropropene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Hexachlorobutadiene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Isopropylbenzene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
4-Isopropyltoluene	1.12	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Methylene chloride	ND	4.94		µg/Kg-dry	1	7/26/2012 7:30:13 PM
n-Butylbenzene	1.68	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
2-Hexanone	ND	4.94		µg/Kg-dry	1	7/26/2012 7:30:13 PM
n-Propylbenzene	2.03	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
sec-Butylbenzene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Styrene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
4-Methyl-2-pentanone	ND	4.94		µg/Kg-dry	1	7/26/2012 7:30:13 PM
tert-Butylbenzene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,1,1,2-Tetrachloroethane	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,1,2,2-Tetrachloroethane	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Tetrachloroethene (PCE)	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
trans-1,2-DCE	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
trans-1,3-Dichloropropene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,2,3-Trichlorobenzene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,2,4-Trichlorobenzene	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,1,1-Trichloroethane	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,1,2-Trichloroethane	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Trichloroethene (TCE)	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Trichlorofluoromethane	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
1,2,3-Trichloropropane	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-2 (24-25')
Project: SWMU NO.14
Collection Date: 7/17/2012 5:30:00 PM
Lab ID: 1207917-010 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.989		µg/Kg-dry	1	7/26/2012 7:30:13 PM
Surr: 1,2-Dichloroethane-d4	183	70-130	S	%REC	1	7/26/2012 7:30:13 PM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	7/26/2012 7:30:13 PM
Surr: Dibromofluoromethane	90.3	70-130		%REC	1	7/26/2012 7:30:13 PM
Surr: Toluene-d8	94.8	70-130		%REC	1	7/26/2012 7:30:13 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-011 **Matrix:** AQUEOUS

Client Sample ID: FB071712
Collection Date: 7/17/2012 6:00:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/23/2012 6:35:12 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/23/2012 6:35:12 PM
Surr: DNOP	127	79.5-166		%REC	1	7/23/2012 6:35:12 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/24/2012 8:06:38 PM
Surr: BFB	108	69.8-119		%REC	1	7/24/2012 8:06:38 PM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	ND	0.0020		mg/L	1	8/17/2012 12:32:40 PM
Beryllium	ND	0.0020		mg/L	1	8/17/2012 12:32:40 PM
Cadmium	ND	0.0020		mg/L	1	8/17/2012 12:32:40 PM
Chromium	ND	0.0060		mg/L	1	8/20/2012 10:55:39 AM
Cobalt	ND	0.0060		mg/L	1	8/17/2012 12:32:40 PM
Iron	ND	0.020		mg/L	1	8/17/2012 12:32:40 PM
Manganese	ND	0.0020		mg/L	1	8/17/2012 12:32:40 PM
Nickel	ND	0.010		mg/L	1	8/20/2012 10:55:39 AM
Silver	ND	0.0050		mg/L	1	8/17/2012 12:32:40 PM
Vanadium	ND	0.050		mg/L	1	8/17/2012 12:32:40 PM
Zinc	ND	0.010		mg/L	1	8/20/2012 10:55:39 AM
EPA 200.8: METALS						Analyst: **SNV**
Antimony	ND	0.0010		mg/L	1	7/31/2012 6:36:25 PM
Arsenic	ND	0.0010		mg/L	1	7/31/2012 6:36:25 PM
Lead	ND	0.0010		mg/L	1	7/31/2012 6:36:25 PM
Selenium	ND	0.0010		mg/L	1	7/31/2012 6:36:25 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	7/24/2012 10:57:49 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Acenaphthylene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Aniline	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Anthracene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Azobenzene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Benz(a)anthracene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Benzo(a)pyrene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Benzoic acid	ND	20		µg/L	1	7/25/2012 12:16:24 PM
Benzyl alcohol	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/25/2012 12:16:24 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB071712
Project: SWMU NO.14
Collection Date: 7/17/2012 6:00:00 PM
Lab ID: 1207917-011
Matrix: AQUEOUS
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/25/2012 12:16:24 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Butyl benzyl phthalate	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Carbazole	ND	10		µg/L	1	7/25/2012 12:16:24 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/25/2012 12:16:24 PM
4-Chloroaniline	ND	10		µg/L	1	7/25/2012 12:16:24 PM
2-Chloronaphthalene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
2-Chlorophenol	ND	10		µg/L	1	7/25/2012 12:16:24 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Chrysene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Di-n-butyl phthalate	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Di-n-octyl phthalate	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Dibenzofuran	ND	10		µg/L	1	7/25/2012 12:16:24 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Diethyl phthalate	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Dimethyl phthalate	ND	10		µg/L	1	7/25/2012 12:16:24 PM
2,4-Dichlorophenol	ND	20		µg/L	1	7/25/2012 12:16:24 PM
2,4-Dimethylphenol	ND	10		µg/L	1	7/25/2012 12:16:24 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/25/2012 12:16:24 PM
2,4-Dinitrophenol	ND	20		µg/L	1	7/25/2012 12:16:24 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Fluoranthene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Fluorene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Hexachlorobenzene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Hexachlorobutadiene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Hexachloroethane	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Isophorone	ND	10		µg/L	1	7/25/2012 12:16:24 PM
1-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
2-Methylphenol	ND	10		µg/L	1	7/25/2012 12:16:24 PM
3+4-Methylphenol	ND	10		µg/L	1	7/25/2012 12:16:24 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/25/2012 12:16:24 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/25/2012 12:16:24 PM

Qualifiers:

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- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-011
Matrix: AQUEOUS
Client Sample ID: FB071712
Collection Date: 7/17/2012 6:00:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Naphthalene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
2-Nitroaniline	ND	10		µg/L	1	7/25/2012 12:16:24 PM
3-Nitroaniline	ND	10		µg/L	1	7/25/2012 12:16:24 PM
4-Nitroaniline	ND	20		µg/L	1	7/25/2012 12:16:24 PM
Nitrobenzene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
2-Nitrophenol	ND	10		µg/L	1	7/25/2012 12:16:24 PM
4-Nitrophenol	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Pentachlorophenol	ND	20		µg/L	1	7/25/2012 12:16:24 PM
Phenanthrene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Phenol	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Pyrene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Pyridine	ND	10		µg/L	1	7/25/2012 12:16:24 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/25/2012 12:16:24 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/25/2012 12:16:24 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/25/2012 12:16:24 PM
Surr: 2,4,6-Tribromophenol	100	44.2-126		%REC	1	7/25/2012 12:16:24 PM
Surr: 2-Fluorobiphenyl	80.6	37-114		%REC	1	7/25/2012 12:16:24 PM
Surr: 2-Fluorophenol	72.9	23.4-98		%REC	1	7/25/2012 12:16:24 PM
Surr: 4-Terphenyl-d14	85.8	41.3-116		%REC	1	7/25/2012 12:16:24 PM
Surr: Nitrobenzene-d5	84.6	39.5-118		%REC	1	7/25/2012 12:16:24 PM
Surr: Phenol-d5	53.5	20.9-95.9		%REC	1	7/25/2012 12:16:24 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
Toluene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
Ethylbenzene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
Naphthalene	ND	2.0		µg/L	1	7/23/2012 8:41:36 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/23/2012 8:41:36 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/23/2012 8:41:36 PM
Acetone	ND	10		µg/L	1	7/23/2012 8:41:36 PM
Bromobenzene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
Bromoform	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
Bromomethane	ND	3.0		µg/L	1	7/23/2012 8:41:36 PM
2-Butanone	ND	10		µg/L	1	7/23/2012 8:41:36 PM
Carbon disulfide	ND	10		µg/L	1	7/23/2012 8:41:36 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB071712
Project: SWMU NO.14
Collection Date: 7/17/2012 6:00:00 PM
Lab ID: 1207917-011
Matrix: AQUEOUS
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Carbon Tetrachloride	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
Chlorobenzene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
Chloroethane	ND	2.0		µg/L	1	7/23/2012 8:41:36 PM
Chloroform	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
Chloromethane	ND	3.0		µg/L	1	7/23/2012 8:41:36 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/23/2012 8:41:36 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
Dibromomethane	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/23/2012 8:41:36 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
2-Hexanone	ND	10		µg/L	1	7/23/2012 8:41:36 PM
Isopropylbenzene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/23/2012 8:41:36 PM
Methylene Chloride	ND	3.0		µg/L	1	7/23/2012 8:41:36 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
Styrene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/23/2012 8:41:36 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB071712
Project: SWMU NO.14
Collection Date: 7/17/2012 6:00:00 PM
Lab ID: 1207917-011
Matrix: AQUEOUS
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/23/2012 8:41:36 PM
Vinyl chloride	ND	1.0		µg/L	1	7/23/2012 8:41:36 PM
Xylenes, Total	ND	1.5		µg/L	1	7/23/2012 8:41:36 PM
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	7/23/2012 8:41:36 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	7/23/2012 8:41:36 PM
Surr: Dibromofluoromethane	123	70-130		%REC	1	7/23/2012 8:41:36 PM
Surr: Toluene-d8	99.0	70-130		%REC	1	7/23/2012 8:41:36 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-012 **Matrix:** AQUEOUS

Client Sample ID: EB071712
Collection Date: 7/17/2012 6:15:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/23/2012 7:00:23 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/23/2012 7:00:23 PM
Surr: DNOP	129	79.5-166		%REC	1	7/23/2012 7:00:23 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/24/2012 8:36:56 PM
Surr: BFB	96.0	69.8-119		%REC	1	7/24/2012 8:36:56 PM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	ND	0.0020		mg/L	1	8/17/2012 12:40:51 PM
Beryllium	ND	0.0020		mg/L	1	8/17/2012 12:40:51 PM
Cadmium	ND	0.0020		mg/L	1	8/17/2012 12:40:51 PM
Chromium	ND	0.0060		mg/L	1	8/20/2012 10:59:36 AM
Cobalt	ND	0.0060		mg/L	1	8/17/2012 12:40:51 PM
Iron	ND	0.020		mg/L	1	8/17/2012 12:40:51 PM
Manganese	ND	0.0020		mg/L	1	8/17/2012 12:40:51 PM
Nickel	ND	0.010		mg/L	1	8/20/2012 10:59:36 AM
Silver	ND	0.0050		mg/L	1	8/17/2012 12:40:51 PM
Vanadium	ND	0.050		mg/L	1	8/17/2012 12:40:51 PM
Zinc	ND	0.010		mg/L	1	8/20/2012 10:59:36 AM
EPA 200.8: METALS						Analyst: **SNV**
Antimony	ND	0.0010		mg/L	1	7/31/2012 6:40:21 PM
Arsenic	ND	0.0010		mg/L	1	7/31/2012 6:40:21 PM
Lead	ND	0.0010		mg/L	1	7/31/2012 6:40:21 PM
Selenium	ND	0.0010		mg/L	1	7/31/2012 6:40:21 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	7/24/2012 10:59:37 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Acenaphthylene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Aniline	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Anthracene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Azobenzene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Benz(a)anthracene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Benzo(a)pyrene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Benzoic acid	ND	20		µg/L	1	7/25/2012 12:46:00 PM
Benzyl alcohol	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/25/2012 12:46:00 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-012
Matrix: AQUEOUS
Client Sample ID: EB071712
Collection Date: 7/17/2012 6:15:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/25/2012 12:46:00 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Butyl benzyl phthalate	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Carbazole	ND	10		µg/L	1	7/25/2012 12:46:00 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/25/2012 12:46:00 PM
4-Chloroaniline	ND	10		µg/L	1	7/25/2012 12:46:00 PM
2-Chloronaphthalene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
2-Chlorophenol	ND	10		µg/L	1	7/25/2012 12:46:00 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Chrysene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Di-n-butyl phthalate	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Di-n-octyl phthalate	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Dibenzofuran	ND	10		µg/L	1	7/25/2012 12:46:00 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Diethyl phthalate	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Dimethyl phthalate	ND	10		µg/L	1	7/25/2012 12:46:00 PM
2,4-Dichlorophenol	ND	20		µg/L	1	7/25/2012 12:46:00 PM
2,4-Dimethylphenol	ND	10		µg/L	1	7/25/2012 12:46:00 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/25/2012 12:46:00 PM
2,4-Dinitrophenol	ND	20		µg/L	1	7/25/2012 12:46:00 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Fluoranthene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Fluorene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Hexachlorobenzene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Hexachlorobutadiene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Hexachloroethane	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Isophorone	ND	10		µg/L	1	7/25/2012 12:46:00 PM
1-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
2-Methylphenol	ND	10		µg/L	1	7/25/2012 12:46:00 PM
3+4-Methylphenol	ND	10		µg/L	1	7/25/2012 12:46:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/25/2012 12:46:00 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/25/2012 12:46:00 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB071712
Project: SWMU NO.14
Collection Date: 7/17/2012 6:15:00 PM
Lab ID: 1207917-012
Matrix: AQUEOUS
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Naphthalene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
2-Nitroaniline	ND	10		µg/L	1	7/25/2012 12:46:00 PM
3-Nitroaniline	ND	10		µg/L	1	7/25/2012 12:46:00 PM
4-Nitroaniline	ND	20		µg/L	1	7/25/2012 12:46:00 PM
Nitrobenzene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
2-Nitrophenol	ND	10		µg/L	1	7/25/2012 12:46:00 PM
4-Nitrophenol	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Pentachlorophenol	ND	20		µg/L	1	7/25/2012 12:46:00 PM
Phenanthrene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Phenol	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Pyrene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Pyridine	ND	10		µg/L	1	7/25/2012 12:46:00 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/25/2012 12:46:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/25/2012 12:46:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/25/2012 12:46:00 PM
Surr: 2,4,6-Tribromophenol	95.4	44.2-126		%REC	1	7/25/2012 12:46:00 PM
Surr: 2-Fluorobiphenyl	86.6	37-114		%REC	1	7/25/2012 12:46:00 PM
Surr: 2-Fluorophenol	66.4	23.4-98		%REC	1	7/25/2012 12:46:00 PM
Surr: 4-Terphenyl-d14	93.3	41.3-116		%REC	1	7/25/2012 12:46:00 PM
Surr: Nitrobenzene-d5	85.5	39.5-118		%REC	1	7/25/2012 12:46:00 PM
Surr: Phenol-d5	52.6	20.9-95.9		%REC	1	7/25/2012 12:46:00 PM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
Toluene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
Ethylbenzene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
Naphthalene	ND	2.0		µg/L	1	7/23/2012 9:11:35 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/23/2012 9:11:35 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/23/2012 9:11:35 PM
Acetone	ND	10		µg/L	1	7/23/2012 9:11:35 PM
Bromobenzene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
Bromoform	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
Bromomethane	ND	3.0		µg/L	1	7/23/2012 9:11:35 PM
2-Butanone	ND	10		µg/L	1	7/23/2012 9:11:35 PM
Carbon disulfide	ND	10		µg/L	1	7/23/2012 9:11:35 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-012
Matrix: AQUEOUS
Client Sample ID: EB071712
Collection Date: 7/17/2012 6:15:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Carbon Tetrachloride	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
Chlorobenzene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
Chloroethane	ND	2.0		µg/L	1	7/23/2012 9:11:35 PM
Chloroform	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
Chloromethane	ND	3.0		µg/L	1	7/23/2012 9:11:35 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/23/2012 9:11:35 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
Dibromomethane	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/23/2012 9:11:35 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
2-Hexanone	ND	10		µg/L	1	7/23/2012 9:11:35 PM
Isopropylbenzene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/23/2012 9:11:35 PM
Methylene Chloride	ND	3.0		µg/L	1	7/23/2012 9:11:35 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
Styrene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/23/2012 9:11:35 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207917-012 **Matrix:** AQUEOUS

Client Sample ID: EB071712
Collection Date: 7/17/2012 6:15:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/23/2012 9:11:35 PM
Vinyl chloride	ND	1.0		µg/L	1	7/23/2012 9:11:35 PM
Xylenes, Total	ND	1.5		µg/L	1	7/23/2012 9:11:35 PM
Surr: 1,2-Dichloroethane-d4	94.9	70-130		%REC	1	7/23/2012 9:11:35 PM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	1	7/23/2012 9:11:35 PM
Surr: Dibromofluoromethane	112	70-130		%REC	1	7/23/2012 9:11:35 PM
Surr: Toluene-d8	106	70-130		%REC	1	7/23/2012 9:11:35 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: SWMU NO.14
Collection Date:
Lab ID: 1207917-013
Matrix: TRIP BLANK
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
Toluene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
Ethylbenzene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
Naphthalene	ND	2.0		µg/L	1	7/23/2012 9:41:26 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/23/2012 9:41:26 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/23/2012 9:41:26 PM
Acetone	ND	10		µg/L	1	7/23/2012 9:41:26 PM
Bromobenzene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
Bromoform	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
Bromomethane	ND	3.0		µg/L	1	7/23/2012 9:41:26 PM
2-Butanone	ND	10		µg/L	1	7/23/2012 9:41:26 PM
Carbon disulfide	ND	10		µg/L	1	7/23/2012 9:41:26 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
Chlorobenzene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
Chloroethane	ND	2.0		µg/L	1	7/23/2012 9:41:26 PM
Chloroform	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
Chloromethane	ND	3.0		µg/L	1	7/23/2012 9:41:26 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/23/2012 9:41:26 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
Dibromomethane	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/23/2012 9:41:26 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
2-Hexanone	ND	10		µg/L	1	7/23/2012 9:41:26 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: SWMU NO.14
Collection Date:
Lab ID: 1207917-013
Matrix: TRIP BLANK
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Isopropylbenzene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/23/2012 9:41:26 PM
Methylene Chloride	ND	3.0		µg/L	1	7/23/2012 9:41:26 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
Styrene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/23/2012 9:41:26 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/23/2012 9:41:26 PM
Vinyl chloride	ND	1.0		µg/L	1	7/23/2012 9:41:26 PM
Xylenes, Total	ND	1.5		µg/L	1	7/23/2012 9:41:26 PM
Surr: 1,2-Dichloroethane-d4	95.6	70-130		%REC	1	7/23/2012 9:41:26 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	7/23/2012 9:41:26 PM
Surr: Dibromofluoromethane	116	70-130		%REC	1	7/23/2012 9:41:26 PM
Surr: Toluene-d8	97.0	70-130		%REC	1	7/23/2012 9:41:26 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120724077
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1207917
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120724077-001	**Sampling Date**	7/17/2012	**Date/Time Received**	7/24/2012 12:47 PM
Client Sample ID	1207917-001D / SWMU 14-4 (0-0.5')	**Sampling Time**	1:18 PM	**Extraction Date**	
		Sample Location			
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.466	7/31/2012	CRW	EPA 335.4	
%moisture	4.8	Percent		7/31/2012	CRW	%moisture	

Sample Number	120724077-002	**Sampling Date**	7/17/2012	**Date/Time Received**	7/24/2012 12:47 PM
Client Sample ID	1207917-002D / SWMU 14-4 (1.5-2.0')	**Sampling Time**	1:30 PM	**Extraction Date**	
		Sample Location			
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.566	7/31/2012	CRW	EPA 335.4	
%moisture	13.6	Percent		7/31/2012	CRW	%moisture	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120724077
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1207917
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120724077-003	**Sampling Date**	7/17/2012	**Date/Time Received**	7/24/2012 12:47 PM
Client Sample ID	1207917-003D / SWMU 14-4 (10-12')	**Sampling Time**	2:00 PM	**Extraction Date**	
		Sample Location			
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.534	7/31/2012	CRW	EPA 335.4	
%moisture	14.1	Percent		7/31/2012	CRW	%moisture	

Sample Number	120724077-004	**Sampling Date**	7/17/2012	**Date/Time Received**	7/24/2012 12:47 PM
Client Sample ID	1207917-004D / SWMU 14-4 (19.5-20')	**Sampling Time**	2:15 PM	**Extraction Date**	
		Sample Location			
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.509	7/31/2012	CRW	EPA 335.4	
%moisture	13	Percent		7/31/2012	CRW	%moisture	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120724077
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1207917
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120724077-005	**Sampling Date**	7/17/2012	**Date/Time Received**	7/24/2012	12:47 PM	
Client Sample ID	1207917-005D / SWMU 14-2 (0-0.5')	**Sampling Time**	4:10 PM	**Extraction Date**			
		Sample Location					
Matrix	Soil						
Comments							

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.511	7/31/2012	CRW	EPA 335.4	
%moisture	6.3	Percent		7/31/2012	CRW	%moisture	

Sample Number	120724077-006	**Sampling Date**	7/17/2012	**Date/Time Received**	7/24/2012	12:47 PM	
Client Sample ID	1207917-006D / SWMU 14-2 (1.5-2.0')	**Sampling Time**	4:24 PM	**Extraction Date**			
		Sample Location					
Matrix	Soil						
Comments							

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.534	7/31/2012	CRW	EPA 335.4	
%moisture	9.7	Percent		7/31/2012	CRW	%moisture	

Anatek Labs, Inc.

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120724077
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1207917
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120724077-007	**Sampling Date**	7/17/2012	**Date/Time Received**	7/24/2012	12:47 PM	
Client Sample ID	1207917-007D / SWMU 14-2 (8-10')	**Sampling Time**	4:45 PM	**Extraction Date**			
		Sample Location					
Matrix	Soil						
Comments							

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.574	7/31/2012	CRW	EPA 335.4	
%moisture	17.5	Percent		7/31/2012	CRW	%moisture	

Sample Number	120724077-008	**Sampling Date**	7/17/2012	**Date/Time Received**	7/24/2012	12:47 PM	
Client Sample ID	1207917-008D / SWMU 14-2 (8-10') DUP	**Sampling Time**	4:45 PM	**Extraction Date**			
		Sample Location					
Matrix	Soil						
Comments							

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.609	7/31/2012	CRW	EPA 335.4	
%moisture	17.7	Percent		7/31/2012	CRW	%moisture	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120724077
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1207917
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120724077-009	**Sampling Date**	7/17/2012	**Date/Time Received**	7/24/2012	12:47 PM	
Client Sample ID	1207917-009D / SWMU 14-2 (16-18')	**Sampling Time**	5:10 PM	**Extraction Date**			
		Sample Location					
Matrix	Soil						
Comments							

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.587	7/31/2012	CRW	EPA 335.4	
%moisture	14.8	Percent		7/31/2012	CRW	%moisture	

Sample Number	120724077-010	**Sampling Date**	7/17/2012	**Date/Time Received**	7/24/2012	12:47 PM	
Client Sample ID	1207917-010D / SWMU 14-2 (24-25')	**Sampling Time**	5:30 PM	**Extraction Date**			
		Sample Location					
Matrix	Soil						
Comments							

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.542	7/31/2012	CRW	EPA 335.4	
%moisture	12.1	Percent		7/31/2012	CRW	%moisture	

Anatek Labs, Inc.

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120724077
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1207917
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120724077-011	**Sampling Date**	7/17/2012	**Date/Time Received**	7/24/2012 12:47 PM
Client Sample ID	1207917-011F / FB071712	**Sampling Time**	6:00 PM	**Extraction Date**	
		Sample Location			
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	7/31/2012	CRW	EPA 335.4	

Sample Number	120724077-012	**Sampling Date**	7/17/2012	**Date/Time Received**	7/24/2012 12:47 PM
Client Sample ID	1207917-012F / FB071712	**Sampling Time**	6:15 PM	**Extraction Date**	
		Sample Location			
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	7/31/2012	CRW	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

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The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**

Client ID: **PBW** Batch ID: **R4938** RunNo: **4938**

Prep Date: Analysis Date: **8/17/2012** SeqNo: **139688** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Vanadium	ND	0.050								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**

Client ID: **LCSW** Batch ID: **R4938** RunNo: **4938**

Prep Date: Analysis Date: **8/17/2012** SeqNo: **139689** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.0005000	98.2	85	115			
Beryllium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.3	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.6	85	115			
Iron	0.48	0.020	0.5000	0	96.8	85	115			
Manganese	0.48	0.0020	0.5000	0	95.4	85	115			
Silver	0.097	0.0050	0.1000	0	96.9	85	115			
Vanadium	0.50	0.050	0.5000	0	101	85	115			

Sample ID **1207807-002BMS** SampType: **MS** TestCode: **EPA Method 200.7: Metals**

Client ID: **BatchQC** Batch ID: **R4938** RunNo: **4938**

Prep Date: Analysis Date: **8/17/2012** SeqNo: **139709** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.60	0.0020	0.5000	0.08916	102	70	130			

Sample ID **1207807-002BMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**

Client ID: **BatchQC** Batch ID: **R4938** RunNo: **4938**

Prep Date: Analysis Date: **8/17/2012** SeqNo: **139710** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.59	0.0020	0.5000	0.08916	99.9	70	130	1.42	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**

Client ID: **PBW** Batch ID: **R4970** RunNo: **4970**

Prep Date: Analysis Date: **8/20/2012** SeqNo: **140607** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Metals					
Client ID:	PBW	Batch ID:	R4970	RunNo:	4970					
Prep Date:		Analysis Date:	8/20/2012	SeqNo:	140607	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	ND	0.0060								
Nickel	ND	0.010								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Metals					
Client ID:	LCSW	Batch ID:	R4970	RunNo:	4970					
Prep Date:		Analysis Date:	8/20/2012	SeqNo:	140608	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.48	0.0060	0.5000	0	96.0	85	115			
Nickel	0.46	0.010	0.5000	0	92.5	85	115			
Zinc	0.48	0.010	0.5000	0	95.6	85	115			

Sample ID	1207B81-004AMS	SampType:	MS	TestCode:	EPA Method 200.7: Metals					
Client ID:	BatchQC	Batch ID:	R4970	RunNo:	4970					
Prep Date:		Analysis Date:	8/20/2012	SeqNo:	140624	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.47	0.0060	0.5000	0	93.3	70	130			
Nickel	0.44	0.010	0.5000	0	88.9	70	130			
Zinc	0.47	0.010	0.5000	0.009760	92.7	70	130			

Sample ID	1207B81-004AMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Metals					
Client ID:	BatchQC	Batch ID:	R4970	RunNo:	4970					
Prep Date:		Analysis Date:	8/20/2012	SeqNo:	140625	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.47	0.0060	0.5000	0	93.5	70	130	0.186	20	
Nickel	0.44	0.010	0.5000	0	88.8	70	130	0.0540	20	
Zinc	0.47	0.010	0.5000	0.009760	92.2	70	130	0.517	20	

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207917

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID 1207508-003AMS	SampType: MS	TestCode: EPA 200.8: Metals
Client ID: BatchQC	Batch ID: R4578	RunNo: 4578
Prep Date:	Analysis Date: 7/31/2012	SeqNo: 128501 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.033	0.0010	0.02500	0.008736	97.7	70	130			

Sample ID 1207608-004AMS	SampType: MS	TestCode: EPA 200.8: Metals
Client ID: BatchQC	Batch ID: R4578	RunNo: 4578
Prep Date:	Analysis Date: 7/31/2012	SeqNo: 128507 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	101	70	130			
Arsenic	0.025	0.0010	0.02500	0	99.9	70	130			
Selenium	0.025	0.0010	0.02500	0	102	70	130			

Sample ID 1207806-004AMS	SampType: MS	TestCode: EPA 200.8: Metals
Client ID: BatchQC	Batch ID: R4578	RunNo: 4578
Prep Date:	Analysis Date: 7/31/2012	SeqNo: 128522 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	100	70	130			
Arsenic	0.025	0.0010	0.02500	0	100	70	130			
Selenium	0.029	0.0010	0.02500	0.004090	98.9	70	130			

Sample ID LCS	SampType: LCS	TestCode: EPA 200.8: Metals
Client ID: LCSW	Batch ID: R4578	RunNo: 4578
Prep Date:	Analysis Date: 7/31/2012	SeqNo: 128780 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	100	85	115			
Arsenic	0.026	0.0010	0.02500	0	104	85	115			
Lead	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.028	0.0010	0.02500	0	112	85	115			

Sample ID LCS	SampType: LCS	TestCode: EPA 200.8: Metals
Client ID: LCSW	Batch ID: R4578	RunNo: 4578
Prep Date:	Analysis Date: 7/31/2012	SeqNo: 128781 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	101	85	115			
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Lead	0.025	0.0010	0.02500	0	100	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R4578**	RunNo: **4578**
Prep Date:	Analysis Date: **7/31/2012**	SeqNo: **128782** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R4578**	RunNo: **4578**
Prep Date:	Analysis Date: **7/31/2012**	SeqNo: **128784** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207917**

Hall Environmental Analysis Laboratory, Inc.

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-2980	SampType:	MBLK		TestCode:	EPA Method 245.1: Mercury				
Client ID:	PBW	Batch ID:	2980		RunNo:	4384				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012		SeqNo:	122215	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-2980	SampType:	LCS		TestCode:	EPA Method 245.1: Mercury				
Client ID:	LCSW	Batch ID:	2980		RunNo:	4384				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012		SeqNo:	122216	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.7	80	120			

Sample ID	1207906-001BMS	SampType:	MS		TestCode:	EPA Method 245.1: Mercury				
Client ID:	BatchQC	Batch ID:	2980		RunNo:	4384				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012		SeqNo:	122218	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.1	75	125			

Sample ID	1207906-001BMSD	SampType:	MSD		TestCode:	EPA Method 245.1: Mercury				
Client ID:	BatchQC	Batch ID:	2980		RunNo:	4384				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012		SeqNo:	122219	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.4	75	125	0.305	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-2946	SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	PBS	Batch ID:	2946		RunNo:	4221				
Prep Date:	7/21/2012	Analysis Date:	7/22/2012		SeqNo:	120621	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		110	77.6	140			

Sample ID	LCS-2946	SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	2946		RunNo:	4221				
Prep Date:	7/21/2012	Analysis Date:	7/22/2012		SeqNo:	120623	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	76.3	52.6	130			
Surr: DNOP	4.5		5.000		90.5	77.6	140			

Sample ID	1207838-001AMS	SampType:	MS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	BatchQC	Batch ID:	2946		RunNo:	4221				
Prep Date:	7/21/2012	Analysis Date:	7/22/2012		SeqNo:	120626	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	9.7	48.73	0	78.1	57.2	146			
Surr: DNOP	4.4		4.873		89.6	77.6	140			

Sample ID	1207838-001AMSD	SampType:	MSD		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	BatchQC	Batch ID:	2946		RunNo:	4221				
Prep Date:	7/21/2012	Analysis Date:	7/22/2012		SeqNo:	120627	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	9.9	49.55	0	71.7	57.2	146	6.92	24.5	
Surr: DNOP	4.4		4.955		88.1	77.6	140	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB-2965**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **2965**	RunNo: **4229**
Prep Date: **7/23/2012**	Analysis Date: **7/23/2012**	SeqNo: **121391** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		123	79.5	166			

Sample ID **LCS-2965**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **2965**	RunNo: **4229**
Prep Date: **7/23/2012**	Analysis Date: **7/23/2012**	SeqNo: **121392** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.0	74	157			
Surr: DNOP	0.51		0.5000		102	79.5	166			

Sample ID **LCSD-2965**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **2965**	RunNo: **4229**
Prep Date: **7/23/2012**	Analysis Date: **7/23/2012**	SeqNo: **121393** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.9	74	157	0.931	23	
Surr: DNOP	0.53		0.5000		106	79.5	166	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBS	Batch ID:	R4415	RunNo:	4415					
Prep Date:		Analysis Date:	7/25/2012	SeqNo:	123776	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	990		1000		98.5	84	116			

Sample ID	2.5UG GRO LCSB	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSS	Batch ID:	R4415	RunNo:	4415					
Prep Date:		Analysis Date:	7/25/2012	SeqNo:	123777	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	27	5.0	25.00	0	107	85	115			
Surr: BFB	1000		1000		103	84	116			

Sample ID	1207A80-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R4415	RunNo:	4415					
Prep Date:		Analysis Date:	7/25/2012	SeqNo:	123779	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	89	25	93.31	0	95.2	70	130			
Surr: BFB	3800		3732		103	84	116			

Sample ID	1207A80-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R4415	RunNo:	4415					
Prep Date:		Analysis Date:	7/25/2012	SeqNo:	123780	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	89	25	93.31	0	95.1	70	130	0.168	22.1	
Surr: BFB	3900		3732		104	84	116	0	0	

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207917**

Hall Environmental Analysis Laboratory, Inc.

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122827** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		88.5	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122828** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	101	75.9	119			
Surr: BFB	21		20.00		103	69.8	119			

Sample ID **1207819-004AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122835** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.7	0.25	2.500	2.307	94.7	75.4	121			
Surr: BFB	100		100.0		103	69.8	119			

Sample ID **1207819-004AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122836** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.1	0.25	2.500	2.307	71.5	75.4	121	13.2	10.5	SR
Surr: BFB	96		100.0		96.5	69.8	119	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **b5**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBS**	Batch ID: **R4233**	RunNo: **4233**	
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121267**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
ı disulfide	ND	0.50								
ɔn tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								

ıfiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **b5**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121267** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.050								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.1	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		107	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		89.1	70	130			
Surr: Toluene-d8	0.53		0.5000		105	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121268** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	107	70.7	123			
Toluene	1.1	0.050	1.000	0	107	80	120			
Chlorobenzene	1.0	0.050	1.000	0	102	70	130			
1,1-Dichloroethene	0.99	0.050	1.000	0	99.0	63.1	148			
Trichloroethene (TCE)	0.89	0.050	1.000	0	88.8	63.2	114			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.1	70	130			
Surr: 4-Bromofluorobenzene	0.60		0.5000		121	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207917

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	100ng lcs2	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	LCSS	Batch ID:	R4233	RunNo:	4233				
Prep Date:		Analysis Date:	7/21/2012	SeqNo:	121268	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.45		0.5000		89.3	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID	1207900-002b ms	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	BatchQC	Batch ID:	R4233	RunNo:	4233				
Prep Date:		Analysis Date:	7/21/2012	SeqNo:	121269	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.70	0.050	0.6439	0.006767	108	81.3	119			
Toluene	0.65	0.050	0.6439	0	100	75	121			
Chlorobenzene	0.64	0.050	0.6439	0	99.6	78.5	120			
1,1-Dichloroethene	0.68	0.050	0.6439	0	106	75.3	115			
Trichloroethene (TCE)	0.61	0.050	0.6439	0	94.7	67.8	119			
Surr: 1,2-Dichloroethane-d4	0.31		0.3220		97.6	70	130			
Surr: 4-Bromofluorobenzene	0.32		0.3220		97.9	70	130			
Surr: Dibromofluoromethane	0.32		0.3220		98.8	70	130			
Surr: Toluene-d8	0.32		0.3220		101	70	130			

Sample ID	1207900-002b msd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	BatchQC	Batch ID:	R4233	RunNo:	4233				
Prep Date:		Analysis Date:	7/21/2012	SeqNo:	121270	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.67	0.050	0.6439	0.006767	103	81.3	119	4.25	15.7	
Toluene	0.63	0.050	0.6439	0	98.3	75	121	2.14	16.2	
Chlorobenzene	0.65	0.050	0.6439	0	101	78.5	120	1.27	14.9	
1,1-Dichloroethene	0.60	0.050	0.6439	0	93.7	75.3	115	12.0	31.8	
Trichloroethene (TCE)	0.55	0.050	0.6439	0	85.7	67.8	119	10.0	16.5	
Surr: 1,2-Dichloroethane-d4	0.31		0.3220		95.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.31		0.3220		97.7	70	130	0	0	
Surr: Dibromofluoromethane	0.30		0.3220		92.3	70	130	0	0	
Surr: Toluene-d8	0.32		0.3220		100	70	130	0	0	

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	PBS	Batch ID:	R4379	RunNo:	4379				
Prep Date:		Analysis Date:	7/23/2012	SeqNo:	122014	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBS**	Batch ID: **R4379**	RunNo: **4379**	
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122014**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122014** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.050								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
'richloropropane	ND	0.10								
nloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.6	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.53		0.5000		105	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122015** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	105	70.7	123			
Toluene	0.96	0.050	1.000	0	95.5	80	120			
Chlorobenzene	0.98	0.050	1.000	0	97.9	70	130			
1,1-Dichloroethene	0.93	0.050	1.000	0	92.5	63.1	148			
Trichloroethene (TCE)	0.88	0.050	1.000	0	88.4	63.2	114			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.5	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		103	70	130			
Surr: Toluene-d8	0.49		0.5000		97.5	70	130			

fiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207917

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207940-007b ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4379** RunNo: **4379**

Prep Date: Analysis Date: **7/24/2012** SeqNo: **122016** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	44	2.5	42.92	2.856	95.9	81.3	119			
Toluene	56	2.5	42.92	14.08	97.1	75	121			
Chlorobenzene	42	2.5	42.92	0	97.1	78.5	120			
1,1-Dichloroethene	39	2.5	42.92	0	91.6	75.3	115			
Trichloroethene (TCE)	37	2.5	42.92	0	85.1	67.8	119			
Surr: 1,2-Dichloroethane-d4	20		21.46		92.0	70	130			
Surr: 4-Bromofluorobenzene	20		21.46		93.8	70	130			
Surr: Dibromofluoromethane	22		21.46		101	70	130			
Surr: Toluene-d8	22		21.46		102	70	130			

Sample ID **1207940-007b msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4379** RunNo: **4379**

Prep Date: Analysis Date: **7/24/2012** SeqNo: **122017** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	43	2.5	42.92	2.856	93.9	81.3	119	1.96	15.7	
Toluene	54	2.5	42.92	14.08	92.6	75	121	3.49	16.2	
Chlorobenzene	42	2.5	42.92	0	97.0	78.5	120	0.0484	14.9	
1,1-Dichloroethene	37	2.5	42.92	0	85.4	75.3	115	7.02	31.8	
Trichloroethene (TCE)	36	2.5	42.92	0	84.2	67.8	119	1.08	16.5	
Surr: 1,2-Dichloroethane-d4	20		21.46		94.1	70	130	0	0	
Surr: 4-Bromofluorobenzene	20		21.46		92.2	70	130	0	0	
Surr: Dibromofluoromethane	23		21.46		106	70	130	0	0	
Surr: Toluene-d8	21		21.46		99.9	70	130	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**		TestCode: **EPA Method 8260B: VOLATILES**		
Client ID: **PBW**	Batch ID: **R4233**		RunNo: **4233**		
Prep Date:	Analysis Date: **7/20/2012**		SeqNo: **120975**	Units: **µg/L**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
ı disulfide	ND	10								
...on tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

...fiers:

- ... Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120975** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.1	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		117	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.0	70	130			
Surr: Toluene-d8	10		10.00		105	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120980** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	84.1	126			
Toluene	22	1.0	20.00	0	109	80	120			
Chlorobenzene	21	1.0	20.00	0	107	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.6	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.5	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120980** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.9		10.00		88.5	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **1207711-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120981** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	66.8	128			
Toluene	23	1.0	20.00	0	116	70	130			
Chlorobenzene	21	1.0	20.00	0	104	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	97.9	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	92.2	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.0	70	130			
Surr: Toluene-d8	11		10.00		108	70	130			

ple ID **1207711-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120982** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	66.8	128	0.0297	16.7	
Toluene	22	1.0	20.00	0	110	70	130	4.99	18.7	
Chlorobenzene	21	1.0	20.00	0	104	70	130	0.103	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	91.2	70	130	7.04	16.7	
Trichloroethene (TCE)	19	1.0	20.00	0	94.3	70	130	2.25	17.5	
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	12		10.00		119	70	130	0	0	
Surr: Dibromofluoromethane	9.3		10.00		92.6	70	130	0	0	
Surr: Toluene-d8	10		10.00		104	70	130	0	0	

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4375**	RunNo: **4375**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **121820** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	84.1	126			
Toluene	19	1.0	20.00	0	93.4	80	120			
Chlorobenzene	19	1.0	20.00	0	97.1	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	111	83	130			

'fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4375**	RunNo: **4375**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **121820** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	21	1.0	20.00	0	104	76.2	119			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	12		10.00		120	70	130			
Surr: Toluene-d8	9.7		10.00		96.6	70	130			

Sample ID **1207855-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4375**	RunNo: **4375**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **121821** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	19	1.0	20.00	0	93.3	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	113	70	130			
Trichloroethene (TCE)	22	1.0	20.00	0	112	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		112	70	130			
Surr: 4-Bromofluorobenzene	8.0		10.00		80.1	70	130			
Surr: Dibromofluoromethane	13		10.00		130	70	130			
Surr: Toluene-d8	10		10.00		99.6	70	130			

Sample ID **1207855-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4375**	RunNo: **4375**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **121822** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	19	1.0	20.00	0	94.4	70	130	1.11	19.5	
1,1-Dichloroethene	20	1.0	20.00	0	99.3	70	130	12.5	16.7	
Trichloroethene (TCE)	19	1.0	20.00	0	93.1	70	130	18.0	17.5	R
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.2		10.00		82.4	70	130	0	0	
Surr: Dibromofluoromethane	12		10.00		115	70	130	0	0	
Surr: Toluene-d8	11		10.00		110	70	130	0	0	

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122005** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207917

22-Aug-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122005** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
' nethane	ND	3.0								
2- orotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene chloride	ND	3.0								

' ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R4379** RunNo: **4379**

Prep Date: Analysis Date: **7/23/2012** SeqNo: **122005** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	11		10.00		105	70	130			

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R4379** RunNo: **4379**

Prep Date: Analysis Date: **7/23/2012** SeqNo: **122008** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	84.1	126			
Toluene	19	1.0	20.00	0	95.5	80	120			
Chlorobenzene	20	1.0	20.00	0	97.9	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.5	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	88.4	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	9.8		10.00		97.5	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R4402	RunNo:	4402					
Prep Date:		Analysis Date:	7/24/2012	SeqNo:	122636	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylnaphthalene	ND	4.0								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R4402	RunNo:	4402					
Prep Date:		Analysis Date:	7/24/2012	SeqNo:	122639	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID	1207922-010a ms	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES					
nt ID:	BatchQC	Batch ID:	R4402	RunNo:	4402					
p Date:		Analysis Date:	7/25/2012	SeqNo:	122640	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID	1207922-010a msd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R4402	RunNo:	4402					
Prep Date:		Analysis Date:	7/25/2012	SeqNo:	122641	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130	0	0	
Surr: Dibromofluoromethane	10		10.00		103	70	130	0	0	
Surr: Toluene-d8	10		10.00		102	70	130	0	0	

Sample ID	5 ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R4375	RunNo:	4375					
Prep Date:		Analysis Date:	7/23/2012	SeqNo:	123094	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5 ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R4375**	RunNo: **4375**	
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **123094**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5 ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4375**	RunNo: **4375**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **123094** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
Trichloroethane	ND	1.0								
ıoroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	12		10.00		118	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

lifiers:

.	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-2962**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBS**	Batch ID: **2962**	RunNo: **4428**	
Prep Date: **7/23/2012**	Analysis Date: **7/25/2012**	SeqNo: **123425**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

nt: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-2962**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **2962**	RunNo: **4428**
Prep Date: **7/23/2012**	Analysis Date: **7/25/2012**	SeqNo: **123425** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
ɔaniline	ND	0.40								
ɔenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.2		3.330		94.9	20.1	121			
Surr: 2-Fluorobiphenyl	1.5		1.670		86.9	19	133			
Surr: 2-Fluorophenol	2.4		3.330		73.0	20.2	108			
Surr: 4-Terphenyl-d14	1.5		1.670		91.1	18.9	115			
Surr: Nitrobenzene-d5	1.3		1.670		79.4	20.8	123			
Surr: Phenol-d5	2.6		3.330		78.8	19.8	115			

Sample ID **lcs-2962**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **2962**	RunNo: **4428**
Prep Date: **7/23/2012**	Analysis Date: **7/25/2012**	SeqNo: **123426** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

lifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **lcs-2962**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **2962**	RunNo: **4428**
Prep Date: **7/23/2012**	Analysis Date: **7/25/2012**	SeqNo: **123426** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	72.7	49.7	98.1			
4-Chloro-3-methylphenol	2.5	0.50	3.330	0	73.7	43.8	89.1			
2-Chlorophenol	2.1	0.20	3.330	0	62.5	41.1	96.9			
1,4-Dichlorobenzene	0.96	0.20	1.670	0	57.6	41	97.4			
2,4-Dinitrotoluene	1.4	0.50	1.670	0	83.6	44.4	104			
N-Nitrosodi-n-propylamine	1.3	0.20	1.670	0	75.2	39.1	86.9			
4-Nitrophenol	2.7	0.25	3.330	0	79.7	44.2	107			
Pentachlorophenol	2.4	0.40	3.330	0	71.3	36.2	80			
Phenol	2.3	0.20	3.330	0	69.4	42.7	92.7			
Pyrene	1.2	0.20	1.670	0	71.1	34.7	98.8			
1,2,4-Trichlorobenzene	1.1	0.20	1.670	0	66.9	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.3		3.330		100	20.1	121			
Surr: 2-Fluorobiphenyl	1.3		1.670		77.9	19	133			
Surr: 2-Fluorophenol	2.2		3.330		67.4	20.2	108			
Surr: 4-Terphenyl-d14	1.5		1.670		89.3	18.9	115			
Surr: Nitrobenzene-d5	1.2		1.670		73.4	20.8	123			
Surr: Phenol-d5	2.6		3.330		78.5	19.8	115			

Sample ID **mb-2996**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **2996**	RunNo: **4454**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124345** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207917

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	mb-2996	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles		
Client ID:	PBS	Batch ID:	2996	RunNo:	4454		
Prep Date:	7/24/2012	Analysis Date:	7/26/2012	SeqNo:	124345	Units:	mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
chlorophenol	ND	0.40								
imethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-2996**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **2996**	RunNo: **4454**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124345** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.4		3.330		102	20.1	121			
Surr: 2-Fluorobiphenyl	1.3		1.670		79.2	19	133			
Surr: 2-Fluorophenol	2.2		3.330		67.3	20.2	108			
Surr: 4-Terphenyl-d14	1.5		1.670		87.9	18.9	115			
Surr: Nitrobenzene-d5	1.3		1.670		77.2	20.8	123			
Surr: Phenol-d5	2.7		3.330		82.4	19.8	115			

Sample ID **lcs-2996**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **2996**	RunNo: **4454**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124346** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	69.0	49.7	98.1			
4-Chloro-3-methylphenol	2.3	0.50	3.330	0	70.3	43.8	89.1			
2-Chlorophenol	2.3	0.20	3.330	0	67.9	41.1	96.9			
1,4-Dichlorobenzene	1.0	0.20	1.670	0	61.9	41	97.4			
2,4-Dinitrotoluene	1.4	0.50	1.670	0	80.8	44.4	104			
N-Nitrosodi-n-propylamine	1.2	0.20	1.670	0	72.1	39.1	86.9			
4-Nitrophenol	2.8	0.25	3.330	0	82.9	44.2	107			
Pentachlorophenol	2.3	0.40	3.330	0	68.1	36.2	80			
Phenol	2.5	0.20	3.330	0	73.9	42.7	92.7			
Pyrene	1.0	0.20	1.670	0	62.2	34.7	98.8			
1,2,4-Trichlorobenzene	1.2	0.20	1.670	0	72.4	37.8	98.3			
Surr: 2,4,6-Tribromophenol	2.8		3.330		82.7	20.1	121			
Surr: 2-Fluorobiphenyl	1.3		1.670		75.6	19	133			
Surr: 2-Fluorophenol	2.2		3.330		66.8	20.2	108			
Surr: 4-Terphenyl-d14	1.3		1.670		78.1	18.9	115			
Surr: Nitrobenzene-d5	1.3		1.670		77.8	20.8	123			
Surr: Phenol-d5	2.5		3.330		74.7	19.8	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207917

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID 1207666-001Ams	SampType: MS	TestCode: EPA Method 8270C: Semivolatiles
Client ID: BatchQC	Batch ID: 2996	RunNo: 4454
Prep Date: 7/24/2012	Analysis Date: 7/26/2012	SeqNo: 124359 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	6.3	1.0	8.322	0	75.9	38.6	100			
4-Chloro-3-methylphenol	14	2.5	16.59	0	86.5	35.8	108			
2-Chlorophenol	13	1.0	16.59	0	79.4	48.2	96.1			
1,4-Dichlorobenzene	6.0	1.0	8.322	0	72.5	42.5	97.6			
2,4-Dinitrotoluene	7.0	2.5	8.322	0	84.0	51.2	108			
N-Nitrosodi-n-propylamine	7.0	1.0	8.322	0	84.7	31.6	114			
4-Nitrophenol	16	1.2	16.59	0.3837	94.3	22.7	144			
Pentachlorophenol	9.8	2.0	16.59	0	59.3	24	109			
Phenol	17	1.0	16.59	6.194	66.9	33.1	108			
Pyrene	5.2	1.0	8.322	0	62.5	42.7	98.9			
1,2,4-Trichlorobenzene	6.1	1.0	8.322	0	73.0	27.1	118			
Surr: 2,4,6-Tribromophenol	15		16.59		92.7	20.1	121			
Surr: 2-Fluorobiphenyl	6.6		8.322		79.8	19	133			
Surr: 2-Fluorophenol	13		16.59		75.7	20.2	108			
Surr: 4-Terphenyl-d14	6.3		8.322		75.6	18.9	115			
Surr: Nitrobenzene-d5	6.7		8.322		80.5	20.8	123			
Surr: Phenol-d5	15		16.59		88.8	19.8	115			

Sample ID 1207666-001Amsd	SampType: MSD	TestCode: EPA Method 8270C: Semivolatiles
Client ID: BatchQC	Batch ID: 2996	RunNo: 4454
Prep Date: 7/24/2012	Analysis Date: 7/26/2012	SeqNo: 124360 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	6.2	1.0	8.406	0	73.4	38.6	100	2.26	20	
4-Chloro-3-methylphenol	14	2.5	16.76	0	81.8	35.8	108	4.66	20	
2-Chlorophenol	13	1.0	16.76	0	79.6	48.2	96.1	1.28	20	
1,4-Dichlorobenzene	6.2	1.0	8.406	0	73.6	42.5	97.6	2.48	20	
2,4-Dinitrotoluene	6.8	2.5	8.406	0	81.0	51.2	108	2.63	20	
N-Nitrosodi-n-propylamine	7.4	1.0	8.406	0	88.4	31.6	114	5.25	20	
4-Nitrophenol	15	1.3	16.76	0.3837	86.4	22.7	144	7.52	20	
Pentachlorophenol	10	2.0	16.76	0	61.0	24	109	3.78	20	
Phenol	20	1.0	16.76	6.194	81.0	33.1	108	13.4	20	
Pyrene	4.8	1.0	8.406	0	57.5	42.7	98.9	7.41	20	
1,2,4-Trichlorobenzene	6.3	1.0	8.406	0	74.7	27.1	118	3.30	20	
Surr: 2,4,6-Tribromophenol	15		16.76		88.4	20.1	121	0	0	
Surr: 2-Fluorobiphenyl	6.3		8.406		75.1	19	133	0	0	
Surr: 2-Fluorophenol	14		16.76		81.8	20.2	108	0	0	
Surr: 4-Terphenyl-d14	6.1		8.406		72.3	18.9	115	0	0	
Surr: Nitrobenzene-d5	6.7		8.406		79.6	20.8	123	0	0	
Surr: Phenol-d5	15		16.76		88.2	19.8	115	0	0	

Qualifiers:

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- E Value above quantitation range
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- R RPD outside accepted recovery limits
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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-2989**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **2989**	RunNo: **4400**
Prep Date: **7/24/2012**	Analysis Date: **7/24/2012**	SeqNo: **122513** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **mb-2989**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **2989**	RunNo: **4400**
Prep Date: **7/24/2012**	Analysis Date: **7/24/2012**	SeqNo: **122513** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
[illegible]aniline	ND	10								
[illegible]aniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	170		200.0		85.4	44.2	126			
Surr: 2-Fluorobiphenyl	86		100.0		85.5	37	114			
Surr: 2-Fluorophenol	120		200.0		61.4	23.4	98			
Surr: 4-Terphenyl-d14	79		100.0		79.3	41.3	116			
Surr: Nitrobenzene-d5	84		100.0		84.2	39.5	118			
Surr: Phenol-d5	110		200.0		53.2	20.9	95.9			

Qualifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **lcs-2989**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **2989**	RunNo: **4400**
Prep Date: **7/24/2012**	Analysis Date: **7/24/2012**	SeqNo: **122514** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	68	10	100.0	0	68.1	38.2	99.4			
4-Chloro-3-methylphenol	140	10	200.0	0	71.3	35.5	108			
2-Chlorophenol	130	10	200.0	0	62.6	29.8	106			
1,4-Dichlorobenzene	47	10	100.0	0	46.8	32.6	91.5			
2,4-Dinitrotoluene	83	10	100.0	0	82.7	44.7	112			
N-Nitrosodi-n-propylamine	70	10	100.0	0	70.3	38.5	105			
4-Nitrophenol	95	10	200.0	0	47.3	11.6	73.1			
Pentachlorophenol	120	20	200.0	0	61.2	20.2	93			
Phenol	84	10	200.0	0	42.0	23	66.1			
Pyrene	71	10	100.0	0	71.2	40.1	101			
1,2,4-Trichlorobenzene	54	10	100.0	0	53.7	37.7	99.1			
Surr: 2,4,6-Tribromophenol	160		200.0		81.9	44.2	126			
Surr: 2-Fluorobiphenyl	73		100.0		72.8	37	114			
Surr: 2-Fluorophenol	98		200.0		49.2	23.4	98			
Surr: 4-Terphenyl-d14	71		100.0		70.6	41.3	116			
Surr: Nitrobenzene-d5	65		100.0		65.1	39.5	118			
Surr: Phenol-d5	91		200.0		45.5	20.9	95.9			

Sample ID **lcsd-2989**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **2989**	RunNo: **4400**
Prep Date: **7/24/2012**	Analysis Date: **7/24/2012**	SeqNo: **122515** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	70	10	100.0	0	69.9	38.2	99.4	2.61	20	
4-Chloro-3-methylphenol	160	10	200.0	0	81.3	35.5	108	13.1	20	
2-Chlorophenol	110	10	200.0	0	55.6	29.8	106	11.9	20	
1,4-Dichlorobenzene	47	10	100.0	0	46.8	32.6	91.5	0.0854	20	
2,4-Dinitrotoluene	91	10	100.0	0	91.2	44.7	112	9.75	20	
N-Nitrosodi-n-propylamine	75	10	100.0	0	74.6	38.5	105	5.82	20	
4-Nitrophenol	92	10	200.0	0	46.1	11.6	73.1	2.55	20	
Pentachlorophenol	110	20	200.0	0	57.5	20.2	93	6.30	20	
Phenol	83	10	200.0	0	41.5	23	66.1	1.15	20	
Pyrene	71	10	100.0	0	71.2	40.1	101	0	20	
1,2,4-Trichlorobenzene	56	10	100.0	0	55.5	37.7	99.1	3.33	20	
Surr: 2,4,6-Tribromophenol	150		200.0		75.1	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	73		100.0		73.1	37	114	0	0	
Surr: 2-Fluorophenol	81		200.0		40.7	23.4	98	0	0	
Surr: 4-Terphenyl-d14	80		100.0		79.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	70		100.0		70.1	39.5	118	0	0	
Surr: Phenol-d5	88		200.0		44.2	20.9	95.9	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-3131	SampType:	MBLK		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	3131		RunNo:	4597				
Prep Date:	8/1/2012	Analysis Date:	8/2/2012		SeqNo:	128955	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-3131	SampType:	LCS		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	3131		RunNo:	4597				
Prep Date:	8/1/2012	Analysis Date:	8/2/2012		SeqNo:	128956	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1667	0	93.3	80	120			

Sample ID	1207B18-001BMS	SampType:	MS		TestCode:	EPA Method 7471: Mercury				
Client ID:	BatchQC	Batch ID:	3131		RunNo:	4597				
Prep Date:	8/1/2012	Analysis Date:	8/2/2012		SeqNo:	128971	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.21	0.033	0.1648	0.06444	87.3	75	125			

Sample ID	1207B18-001BMSD	SampType:	MSD		TestCode:	EPA Method 7471: Mercury				
Client ID:	BatchQC	Batch ID:	3131		RunNo:	4597				
Prep Date:	8/1/2012	Analysis Date:	8/2/2012		SeqNo:	128972	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.20	0.033	0.1651	0.06444	84.5	75	125	2.10	20	

Sample ID	MB-3180	SampType:	MBLK		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	3180		RunNo:	4662				
Prep Date:	8/3/2012	Analysis Date:	8/3/2012		SeqNo:	131070	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-3180	SampType:	LCS		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	3180		RunNo:	4662				
Prep Date:	8/3/2012	Analysis Date:	8/3/2012		SeqNo:	131071	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	102	80	120			

Sample ID	1207917-009CMS	SampType:	MS		TestCode:	EPA Method 7471: Mercury				
Client ID:	SWMU 14-2 (16-18')	Batch ID:	3180		RunNo:	4662				
Prep Date:	8/3/2012	Analysis Date:	8/3/2012		SeqNo:	131078	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1658	0	98.9	75	125			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207917-009CMSD** SampType: **MSD** TestCode: **EPA Method 7471: Mercury**

Client ID: **SWMU 14-2 (16-18')** Batch ID: **3180** RunNo: **4662**

Prep Date: **8/3/2012** Analysis Date: **8/3/2012** SeqNo: **131081** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.19	0.033	0.1651	0	115	75	125	14.8	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

t: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-3107	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS	Batch ID:	3107	RunNo:	4677				
Prep Date:	7/31/2012	Analysis Date:	8/6/2012	SeqNo:	131415	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID	LCS-3107	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	LCSS	Batch ID:	3107	RunNo:	4677				
Prep Date:	7/31/2012	Analysis Date:	8/6/2012	SeqNo:	131416	Units:	mg/Kg		

'yte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
[illegible]	24	2.5	25.00	0	96.5	80	120			
Barium	23	0.10	25.00	0	91.0	80	120			
Beryllium	25	0.15	25.00	0	98.2	80	120			
Cadmium	23	0.10	25.00	0	91.9	80	120			
Chromium	23	0.30	25.00	0	90.5	80	120			
Lead	23	0.25	25.00	0	91.2	80	120			
Manganese	22	0.10	25.00	0	89.5	80	120			
Nickel	22	0.50	25.00	0	88.1	80	120			
Selenium	23	2.5	25.00	0	93.1	80	120			
Silver	4.6	0.25	5.000	0	92.6	80	120			
Vanadium	24	2.5	25.00	0	94.5	80	120			
Zinc	23	2.5	25.00	0	93.0	80	120			

Sample ID	MB-3009	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS	Batch ID:	3009	RunNo:	4698				
Prep Date:	7/24/2012	Analysis Date:	8/6/2012	SeqNo:	132140	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	1.0								

[illegible]ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	LCS-3009	SampType:	LCS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	LCSS	Batch ID:	3009		RunNo:	4698				
Prep Date:	7/24/2012	Analysis Date:	8/6/2012		SeqNo:	132141	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	26	1.0	25.00	0.9555	99.3	80	120			

Sample ID	MB-3107	SampType:	MBLK		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS	Batch ID:	3107		RunNo:	4698				
Prep Date:	7/31/2012	Analysis Date:	8/6/2012		SeqNo:	132142	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	1.0								

Sample ID	LCS-3107	SampType:	LCS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	LCSS	Batch ID:	3107		RunNo:	4698				
Prep Date:	7/31/2012	Analysis Date:	8/6/2012		SeqNo:	132143	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	26	1.0	25.00	0.7880	103	80	120			

Sample ID	MB-3009	SampType:	MBLK		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS	Batch ID:	3009		RunNo:	4699				
Prep Date:	7/24/2012	Analysis Date:	8/5/2012		SeqNo:	132220	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID	LCS-3009	SampType:	LCS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	LCSS	Batch ID:	3009		RunNo:	4699				
Prep Date:	7/24/2012	Analysis Date:	8/5/2012		SeqNo:	132221	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	28	2.5	25.00	0	114	80	120			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207917

22-Aug-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **LCS-3009** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **LCSS** Batch ID: **3009** RunNo: **4699**

Prep Date: **7/24/2012** Analysis Date: **8/5/2012** SeqNo: **132221** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	29	2.5	25.00	0	117	80	120			
Barium	27	0.10	25.00	0	107	80	120			
Beryllium	29	0.15	25.00	0.01250	117	80	120			
Cadmium	27	0.10	25.00	0	110	80	120			
Chromium	26	0.30	25.00	0	106	80	120			
Cobalt	29	0.30	25.00	0	115	80	120			
Lead	27	0.25	25.00	0	110	80	120			
Manganese	26	0.10	25.00	0.07300	106	80	120			
Nickel	26	0.50	25.00	0	105	80	120			
Selenium	30	2.5	25.00	0	121	80	120			S
Silver	5.4	0.25	5.000	0	108	80	120			
Vanadium	27	2.5	25.00	0.07050	109	80	120			
Zinc	29	2.5	25.00	0	116	80	120			

Sample ID **1207917-005CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **SWMU 14-2 (0-0.5')** Batch ID: **3009** RunNo: **4699**

Prep Date: **7/24/2012** Analysis Date: **8/5/2012** SeqNo: **132249** Units: **mg/Kg**

yte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	21	12	23.84	0	89.4	75	125			
Beryllium	24	0.75	23.84	0.6761	97.6	75	125			
Cadmium	22	0.50	23.84	0	90.6	75	125			
Chromium	29	1.5	23.84	8.850	84.7	75	125			
Cobalt	26	1.5	23.84	4.445	90.6	75	125			
Lead	23	1.2	23.84	3.311	82.6	75	125			
Nickel	27	2.5	23.84	6.181	86.9	75	125			
Silver	4.0	1.2	4.768	0	83.8	75	125			

Sample ID **1207917-005CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **SWMU 14-2 (0-0.5')** Batch ID: **3009** RunNo: **4699**

Prep Date: **7/24/2012** Analysis Date: **8/5/2012** SeqNo: **132250** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	24	12	24.91	0	94.6	75	125	9.99	20	
Beryllium	25	0.75	24.91	0.6761	98.4	75	125	5.04	20	
Cadmium	23	0.50	24.91	0	90.6	75	125	4.33	20	
Chromium	32	1.5	24.91	8.850	94.1	75	125	10.6	20	
Cobalt	27	1.5	24.91	4.445	91.3	75	125	4.29	20	
Lead	25	1.2	24.91	3.311	87.3	75	125	8.61	20	
Nickel	29	2.5	24.91	6.181	91.7	75	125	7.56	20	
Silver	4.4	1.2	4.982	0	88.1	75	125	9.44	20	

C ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB-3107** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **3107** RunNo: **4734**
Prep Date: **7/31/2012** Analysis Date: **8/8/2012** SeqNo: **133431** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Cobalt	ND	0.30								

Sample ID **LCS-3107** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **3107** RunNo: **4734**
Prep Date: **7/31/2012** Analysis Date: **8/8/2012** SeqNo: **133432** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	26	2.5	25.00	0	103	80	120			
Cobalt	24	0.30	25.00	0	94.8	80	120			

Sample ID **1207917-005CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **SWMU 14-2 (0-0.5')** Batch ID: **3009** RunNo: **4734**
Prep Date: **7/24/2012** Analysis Date: **8/8/2012** SeqNo: **133485** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	13	12	23.84	0	54.1	75	125			S
Vanadium	43	12	23.84	31.42	47.7	75	125			S

Sample ID **1207917-005CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **SWMU 14-2 (0-0.5')** Batch ID: **3009** RunNo: **4734**
Prep Date: **7/24/2012** Analysis Date: **8/8/2012** SeqNo: **133486** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	14	12	24.91	0	57.7	75	125	10.9	20	S
Vanadium	55	12	24.91	31.42	93.0	75	125	24.2	20	R

Sample ID **1207917-005CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **SWMU 14-2 (0-0.5')** Batch ID: **3009** RunNo: **4816**
Prep Date: **7/24/2012** Analysis Date: **8/10/2012** SeqNo: **135933** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	13	23.84	3.961	28.4	75	125			S
Zinc	35	13	23.84	16.80	76.6	75	125			

Sample ID **1207917-005CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **SWMU 14-2 (0-0.5')** Batch ID: **3009** RunNo: **4816**
Prep Date: **7/24/2012** Analysis Date: **8/10/2012** SeqNo: **135934** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	13	24.91	3.961	34.3	75	125	0	20	S
Zinc	39	13	24.91	16.80	90.3	75	125	11.4	20	

Qualifiers:

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- E Value above quantitation range
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- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207917**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	1207917-006CMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	SWMU 14-2 (1.5-2.0'	Batch ID:	3107	RunNo:	4816					
Prep Date:	7/31/2012	Analysis Date:	8/10/2012	SeqNo:	135937	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	13	12	24.90	3.628	37.5	75	125			S
Arsenic	24	12	24.90	0	95.2	75	125			
Beryllium	25	0.75	24.90	0.7577	99.3	75	125			
Cadmium	24	0.50	24.90	0	94.7	75	125			
Chromium	37	1.5	24.90	12.12	99.0	75	125			
Cobalt	27	1.5	24.90	3.833	91.0	75	125			
Lead	23	1.2	24.90	4.390	76.5	75	125			
Nickel	30	2.5	24.90	7.255	90.8	75	125			
Selenium	19	12	24.90	0	77.0	75	125			
Silver	4.5	1.2	4.981	0	89.7	75	125			
Vanadium	50	12	24.90	20.97	117	75	125			
Zinc	49	12	24.90	35.46	52.9	75	125			S

Sample ID	1207917-006CMSD	SampType:	MSD	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	SWMU 14-2 (1.5-2.0'	Batch ID:	3107	RunNo:	4816					
Prep Date:	7/31/2012	Analysis Date:	8/10/2012	SeqNo:	135940	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	12	24.81	3.628	35.3	75	125	200	20	S
Arsenic	22	12	24.81	0	88.4	75	125	7.79	20	
Beryllium	25	0.75	24.81	0.7577	96.5	75	125	3.15	20	
Cadmium	23	0.50	24.81	0	92.9	75	125	2.30	20	
Chromium	33	1.5	24.81	12.12	84.2	75	125	10.8	20	
Cobalt	26	1.5	24.81	3.833	89.7	75	125	1.59	20	
Lead	23	1.2	24.81	4.390	76.6	75	125	0.134	20	
Nickel	28	2.5	24.81	7.255	82.8	75	125	7.18	20	
Selenium	18	12	24.81	0	70.7	75	125	8.91	20	S
Silver	4.3	1.2	4.962	0	86.6	75	125	3.84	20	
Vanadium	46	12	24.81	20.97	98.9	75	125	9.82	20	
Zinc	51	12	24.81	35.46	63.8	75	125	5.31	20	S

Qualifiers:

- S Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1207917**

Received by/date: 07/20/12

Logged By: **Ashley Gallegos** 7/20/2012 7:55:00 AM

Completed By: **Ashley Gallegos** 7/20/2012 11:37:29 AM

Reviewed By: MG 07/20/12

Chain of Custody

1. Were seals intact?	Yes	No	Not Present ✔
2. Is Chain of Custody complete?	Yes ✔	No	Not Present
3. How was the sample delivered?	FedEx		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ✔	No	NA
5. Was an attempt made to cool the samples?	Yes ✔	No	NA
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
7. Sample(s) in proper container(s)?	Yes ✔	No	
8. Sufficient sample volume for indicated test(s)?	Yes ✔	No	
9. Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
10. Was preservative added to bottles?	Yes	No ✔	NA
11. VOA vials have zero headspace?	Yes	No	No VOA Vials ✔
12. Were any sample containers received broken?	Yes	No ✔	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH: 2 2
14. Are matrices correctly identified on Chain of Custody?	Yes ✔	No	(<2 or >12 unless noted)
15. Is it clear what analyses were requested?	Yes ✔	No	Adjusted?
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes No NA ✔

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.8	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other _____
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush _____
Project Name: SWMU NO. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 2

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1209717	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
7-17-12	1318	SOIL	SWMU 14-4 (0-0.5')	2 ENCORES	—	-001										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1330		SWMU 14-4 (1.5-2')	2 ENCORES	—	-002										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1400		SWMU 14-4 (10-12')	2 ENCORES	—	-003										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1415		SWMU 14-4 (19.5-20')	2 ENCORES	—	-004										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Date	Time	Remarks:
7-18-12	0730			07/20/12	0755	
Date:	Time:	Relinquished by:	Received by:	Date	Time	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE
On Ice: [ ] Yes [ ] No
Sample Temperature: 1.8

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1207247	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
7.17.12	1610	SOIL	SWMU 14-2 (0-0.5')	2 ENCORES	-	-005										X						
				2 VIALS	MeOH											X						
				2 JARS	-											X	X	X	X			
	1624		SWMU 14-2 (1.5-2.0')	2 ENCORES	-	-006										X						
				2 VIALS	MeOH											X						
				2 JARS	-											X	X	X	X			
	1645		SWMU 14-2 (8-10')	2 ENCORES	-	-007										X						
				2 VIALS	MeOH											X						
				2 JARS	-											X	X	X	X			
	1645		SWMU 14-2 (8-10') DUP	2 ENCORES	-	-008										X						
				2 VIALS	MeOH											X						
				2 JARS	-											X	X	X	X			

Date	Time	Relinquished by:	Received by:	Date	Time
7.18	[illegible]			07/20/12	0755
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: SWMU NO. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 8

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1207917
7-17-12	1710	SOIL	SWMU 14-2 (16-18')	2 ENCORES	—	-009
				2 VIALS	MeOH	
				2 JARS	—	
	1730		SWMU 14-2 (24-25')	2 ENCORES	—	-010
				2 VIALS	MeOH	
				2 JARS	—	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
									X	*					
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
7-18-12	0730			07/20/12	0755
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW INC
GALLUP REFINERY
Mailing Address: 3 BOX 7 ROUTE
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: SWMU NO. 14
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.6

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1207917	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) #1	8270 (Semi-VOA)	TPH	METALS			Air Bubbles (Y or N)
7-17-12	1800	WATER	FB071712	6 VOA	HCL & NEAT	-011										X		X				
				1L AMBER													X					
				PLASTIC	HNO_3														X			
				PLASTIC	NAOH														X			
	1815	WATER	EB071712	6 VOA	HCL & NEAT	-012										X		X				
				1L AMBER													X					
				PLASTIC	HNO_3														X			
				PLASTIC	NA OH														X			
7-17-12	—	WATER	TRIP BLANK	VOA	HCL	-013										X						

Date	Time	Relinquished by:	Received by:	Date	Time
7-18-12	0730			07/20/12	0755
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Metals List for SWMU No. 14 Old API Separator
Gallup Refinery
Western Refining Southwest, Inc.

Analyte	Analytical Method
Antimony	SW-846 method 6010/6020
Arsenic	SW-846 method 6010/6020
Barium	SW-846 method 6010/6020
Beryllium	SW-846 method 6010/6020
Cadmium	SW-846 method 6010/6020
Chromium	SW-846 method 6010/6020
Cobalt	SW-846 method 6010/6020
Cyanide	SW-846 method 335.4/335.2 mod
Lead	SW-846 method 6010/6020
Mercury	SW-846 method 7470/7471
Nickel	SW-846 method 6010/6020
Selenium	SW-846 method 6010/6020
Silver	SW-846 method 6010/6020
Vanadium	SW-846 method 6010/6020
Zinc	SW-846 method 6010/6020
Iron	SW-846 method 6010/6020
Manganese	SW-846 method 6010/6020

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Website: www.hallenvironmental.com

August 22, 2012

Thurman B. Larsen
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: SWMU NO.14 OrderNo.: 1207922

Dear Thurman B. Larsen:

Hall Environmental Analysis Laboratory received 10 sample(s) on 7/20/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1207922**
Date Reported: **8/22/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-001 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (0-0.5')
Collection Date: 7/18/2012 4:20:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	1000	200		mg/Kg	20	7/21/2012 11:21:42 PM
Motor Oil Range Organics (MRO)	ND	990		mg/Kg	20	7/21/2012 11:21:42 PM
Surr: DNOP	0	77.6-140	S	%REC	20	7/21/2012 11:21:42 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	7/26/2012 5:56:39 PM
Surr: BFB	100	84-116		%REC	10	7/26/2012 5:56:39 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.68	0.16		mg/Kg	5	8/3/2012 4:15:31 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	12		mg/Kg	5	8/10/2012 6:49:12 PM
Arsenic	ND	12		mg/Kg	5	8/10/2012 6:49:12 PM
Barium	480	5.0		mg/Kg	50	8/10/2012 6:52:46 PM
Beryllium	ND	0.75		mg/Kg	5	8/10/2012 6:49:12 PM
Cadmium	ND	0.50		mg/Kg	5	8/10/2012 6:49:12 PM
Chromium	13	1.5		mg/Kg	5	8/10/2012 6:49:12 PM
Cobalt	3.8	1.5		mg/Kg	5	8/10/2012 6:49:12 PM
Iron	14000	500		mg/Kg	500	8/10/2012 6:55:13 PM
Lead	5.5	1.2		mg/Kg	5	8/10/2012 6:49:12 PM
Manganese	1800	5.0		mg/Kg	50	8/10/2012 6:52:46 PM
Nickel	6.3	2.5		mg/Kg	5	8/10/2012 6:49:12 PM
Selenium	ND	12		mg/Kg	5	8/10/2012 6:49:12 PM
Silver	ND	1.2		mg/Kg	5	8/10/2012 6:49:12 PM
Vanadium	18	12		mg/Kg	5	8/10/2012 6:49:12 PM
Zinc	44	12		mg/Kg	5	8/10/2012 6:49:12 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Acenaphthylene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Aniline	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Anthracene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Azobenzene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Benz(a)anthracene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Benzo(a)pyrene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Benzo(b)fluoranthene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Benzo(g,h,i)perylene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Benzo(k)fluoranthene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Benzoic acid	ND	2.5		mg/Kg	1	7/27/2012 9:55:46 AM
Benzyl alcohol	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Bis(2-chloroethoxy)methane	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Bis(2-chloroethyl)ether	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Bis(2-chloroisopropyl)ether	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-001 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (0-0.5')
Collection Date: 7/18/2012 4:20:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	2.6	2.5		mg/Kg	1	7/27/2012 9:55:46 AM
4-Bromophenyl phenyl ether	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Butyl benzyl phthalate	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Carbazole	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 9:55:46 AM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/27/2012 9:55:46 AM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/27/2012 9:55:46 AM
2-Chlorophenol	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
4-Chlorophenyl phenyl ether	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Chrysene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/27/2012 9:55:46 AM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/27/2012 9:55:46 AM
Dibenz(a,h)anthracene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Dibenzofuran	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
1,2-Dichlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
1,3-Dichlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
1,4-Dichlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/27/2012 9:55:46 AM
Diethyl phthalate	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Dimethyl phthalate	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/27/2012 9:55:46 AM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/27/2012 9:55:46 AM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 9:55:46 AM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/27/2012 9:55:46 AM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 9:55:46 AM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 9:55:46 AM
Fluoranthene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Fluorene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Hexachlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Hexachlorobutadiene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Hexachlorocyclopentadiene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Hexachloroethane	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Indeno(1,2,3-cd)pyrene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Isophorone	ND	2.5		mg/Kg	1	7/27/2012 9:55:46 AM
1-Methylnaphthalene	1.5	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
2-Methylnaphthalene	1.9	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
2-Methylphenol	ND	2.5		mg/Kg	1	7/27/2012 9:55:46 AM
3+4-Methylphenol	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
N-Nitrosodi-n-propylamine	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
N-Nitrosodiphenylamine	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Naphthalene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
2-Nitroaniline	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-001 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (0-0.5')
Collection Date: 7/18/2012 4:20:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/27/2012 9:55:46 AM
Nitrobenzene	ND	2.5		mg/Kg	1	7/27/2012 9:55:46 AM
2-Nitrophenol	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/27/2012 9:55:46 AM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/27/2012 9:55:46 AM
Phenanthrene	1.7	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Phenol	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Pyrene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Pyridine	ND	2.5		mg/Kg	1	7/27/2012 9:55:46 AM
1,2,4-Trichlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
2,4,5-Trichlorophenol	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
2,4,6-Trichlorophenol	ND	0.99		mg/Kg	1	7/27/2012 9:55:46 AM
Surr: 2,4,6-Tribromophenol	107	20.1-121		%REC	1	7/27/2012 9:55:46 AM
Surr: 2-Fluorobiphenyl	94.9	19-133		%REC	1	7/27/2012 9:55:46 AM
Surr: 2-Fluorophenol	96.9	20.2-108		%REC	1	7/27/2012 9:55:46 AM
Surr: 4-Terphenyl-d14	99.7	18.9-115		%REC	1	7/27/2012 9:55:46 AM
Surr: Nitrobenzene-d5	99.1	20.8-123		%REC	1	7/27/2012 9:55:46 AM
Surr: Phenol-d5	87.0	19.8-115		%REC	1	7/27/2012 9:55:46 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Toluene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Ethylbenzene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Xylenes, Total	2.82	1.87		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Methyl tert-butyl ether (MTBE)	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,2,4-Trimethylbenzene	2.00	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,3,5-Trimethylbenzene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,2-Dichloroethane (EDC)	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,2-Dibromoethane (EDB)	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Naphthalene	18.3	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1-Methylnaphthalene	67.4	3.74		µg/Kg-dry	1	7/20/2012 2:29:55 PM
2-Methylnaphthalene	107	3.74	E	µg/Kg-dry	1	7/20/2012 2:29:55 PM
Acetone	ND	9.34		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Bromobenzene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Bromodichloromethane	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Bromoform	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
2-Butanone	ND	1.87		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Carbon tetrachloride	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Chlorobenzene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Chloroethane	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Chloroform	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-001 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (0-0.5')
Collection Date: 7/18/2012 4:20:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
2-Chlorotoluene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Carbon disulfide	ND	1.87		µg/Kg-dry	1	7/20/2012 2:29:55 PM
4-Chlorotoluene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
cis-1,2-DCE	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
cis-1,3-Dichloropropene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,2-Dibromo-3-chloropropane	ND	1.87		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Dibromochloromethane	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Dibromomethane	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,2-Dichlorobenzene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,3-Dichlorobenzene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,4-Dichlorobenzene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Dichlorodifluoromethane	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,1-Dichloroethane	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,1-Dichloroethene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,2-Dichloropropane	ND	1.87		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,3-Dichloropropane	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
2,2-Dichloropropane	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,1-Dichloropropene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Hexachlorobutadiene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Isopropylbenzene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
4-Isopropyltoluene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Methylene chloride	ND	1.87		µg/Kg-dry	1	7/20/2012 2:29:55 PM
n-Butylbenzene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
2-Hexanone	ND	1.87		µg/Kg-dry	1	7/20/2012 2:29:55 PM
n-Propylbenzene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
sec-Butylbenzene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Styrene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
4-Methyl-2-pentanone	ND	1.87		µg/Kg-dry	1	7/20/2012 2:29:55 PM
tert-Butylbenzene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,1,1,2-Tetrachloroethane	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,1,2,2-Tetrachloroethane	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Tetrachloroethene (PCE)	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
trans-1,2-DCE	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
trans-1,3-Dichloropropene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,2,3-Trichlorobenzene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,2,4-Trichlorobenzene	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,1,1-Trichloroethane	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,1,2-Trichloroethane	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Trichloroethene (TCE)	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Trichlorofluoromethane	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
1,2,3-Trichloropropane	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-001 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (0-0.5')
Collection Date: 7/18/2012 4:20:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.934		µg/Kg-dry	1	7/20/2012 2:29:55 PM
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	7/20/2012 2:29:55 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	7/20/2012 2:29:55 PM
Surr: Dibromofluoromethane	95.9	70-130		%REC	1	7/20/2012 2:29:55 PM
Surr: Toluene-d8	103	70-130		%REC	1	7/20/2012 2:29:55 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-002 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (0-0.5') Dup
Collection Date: 7/18/2012 4:20:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	1000	200		mg/Kg	20	7/21/2012 11:43:41 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	7/21/2012 11:43:41 PM
Surr: DNOP	0	77.6-140	S	%REC	20	7/21/2012 11:43:41 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	7/26/2012 6:25:29 PM
Surr: BFB	99.0	84-116		%REC	10	7/26/2012 6:25:29 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.32	0.033		mg/Kg	1	8/3/2012 4:13:44 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	12		mg/Kg	5	8/10/2012 6:57:51 PM
Arsenic	ND	12		mg/Kg	5	8/10/2012 6:57:51 PM
Barium	490	5.0		mg/Kg	50	8/10/2012 7:10:33 PM
Beryllium	1.0	0.75		mg/Kg	5	8/10/2012 6:57:51 PM
Cadmium	ND	0.50		mg/Kg	5	8/10/2012 6:57:51 PM
Chromium	22	1.5		mg/Kg	5	8/10/2012 6:57:51 PM
Cobalt	5.9	1.5		mg/Kg	5	8/10/2012 6:57:51 PM
Iron	18000	500		mg/Kg	500	8/10/2012 7:12:57 PM
Lead	40	1.2		mg/Kg	5	8/10/2012 6:57:51 PM
Manganese	460	5.0		mg/Kg	50	8/10/2012 7:10:33 PM
Nickel	11	2.5		mg/Kg	5	8/10/2012 6:57:51 PM
Selenium	ND	12		mg/Kg	5	8/10/2012 6:57:51 PM
Silver	ND	1.2		mg/Kg	5	8/10/2012 6:57:51 PM
Vanadium	29	12		mg/Kg	5	8/10/2012 6:57:51 PM
Zinc	57	12		mg/Kg	5	8/10/2012 6:57:51 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Acenaphthylene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Aniline	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Anthracene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Azobenzene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Benzoic acid	ND	2.5		mg/Kg	1	7/27/2012 10:25:26 AM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-002 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (0-0.5') Dup
Collection Date: 7/18/2012 4:20:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/27/2012 10:25:26 AM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Carbazole	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 10:25:26 AM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/27/2012 10:25:26 AM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/27/2012 10:25:26 AM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Chrysene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/27/2012 10:25:26 AM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/27/2012 10:25:26 AM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Dibenzofuran	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/27/2012 10:25:26 AM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/27/2012 10:25:26 AM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/27/2012 10:25:26 AM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 10:25:26 AM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/27/2012 10:25:26 AM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 10:25:26 AM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 10:25:26 AM
Fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Fluorene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Hexachloroethane	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Isophorone	ND	2.5		mg/Kg	1	7/27/2012 10:25:26 AM
1-Methylnaphthalene	1.5	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
2-Methylnaphthalene	1.7	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
2-Methylphenol	ND	2.5		mg/Kg	1	7/27/2012 10:25:26 AM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Naphthalene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-002 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (0-0.5') Dup
Collection Date: 7/18/2012 4:20:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/27/2012 10:25:26 AM
Nitrobenzene	ND	2.5		mg/Kg	1	7/27/2012 10:25:26 AM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/27/2012 10:25:26 AM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/27/2012 10:25:26 AM
Phenanthrene	1.9	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Phenol	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Pyrene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Pyridine	ND	2.5		mg/Kg	1	7/27/2012 10:25:26 AM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 10:25:26 AM
Surr: 2,4,6-Tribromophenol	99.4	20.1-121		%REC	1	7/27/2012 10:25:26 AM
Surr: 2-Fluorobiphenyl	94.3	19-133		%REC	1	7/27/2012 10:25:26 AM
Surr: 2-Fluorophenol	94.1	20.2-108		%REC	1	7/27/2012 10:25:26 AM
Surr: 4-Terphenyl-d14	111	18.9-115		%REC	1	7/27/2012 10:25:26 AM
Surr: Nitrobenzene-d5	93.8	20.8-123		%REC	1	7/27/2012 10:25:26 AM
Surr: Phenol-d5	86.6	19.8-115		%REC	1	7/27/2012 10:25:26 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Toluene	1.71	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Ethylbenzene	2.85	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Xylenes, Total	16.8	1.96		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Methyl tert-butyl ether (MTBE)	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,2,4-Trimethylbenzene	8.95	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,3,5-Trimethylbenzene	2.92	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,2-Dichloroethane (EDC)	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,2-Dibromoethane (EDB)	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Naphthalene	47.1	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1-Methylnaphthalene	137	3.91	E	µg/Kg-dry	1	7/20/2012 3:32:59 PM
2-Methylnaphthalene	239	3.91	E	µg/Kg-dry	1	7/20/2012 3:32:59 PM
Acetone	ND	9.78		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Bromobenzene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Bromodichloromethane	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Bromoform	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
2-Butanone	ND	1.96		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Carbon tetrachloride	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Chlorobenzene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Chloroethane	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Chloroform	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMWU 14-9 (0-0.5') Dup
Project: SWMU NO.14
Collection Date: 7/18/2012 4:20:00 PM
Lab ID: 1207922-002 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
2-Chlorotoluene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Carbon disulfide	ND	1.96		µg/Kg-dry	1	7/20/2012 3:32:59 PM
4-Chlorotoluene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
cis-1,2-DCE	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
cis-1,3-Dichloropropene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,2-Dibromo-3-chloropropane	ND	1.96		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Dibromochloromethane	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Dibromomethane	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,2-Dichlorobenzene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,3-Dichlorobenzene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,4-Dichlorobenzene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Dichlorodifluoromethane	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,1-Dichloroethane	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,1-Dichloroethene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,2-Dichloropropane	ND	1.96		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,3-Dichloropropane	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
2,2-Dichloropropane	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,1-Dichloropropene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Hexachlorobutadiene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Isopropylbenzene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
4-Isopropyltoluene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Methylene chloride	ND	1.96		µg/Kg-dry	1	7/20/2012 3:32:59 PM
n-Butylbenzene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
2-Hexanone	ND	1.96		µg/Kg-dry	1	7/20/2012 3:32:59 PM
n-Propylbenzene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
sec-Butylbenzene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Styrene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
4-Methyl-2-pentanone	ND	1.96		µg/Kg-dry	1	7/20/2012 3:32:59 PM
tert-Butylbenzene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,1,1,2-Tetrachloroethane	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,1,2,2-Tetrachloroethane	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Tetrachloroethene (PCE)	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
trans-1,2-DCE	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
trans-1,3-Dichloropropene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,2,3-Trichlorobenzene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,2,4-Trichlorobenzene	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,1,1-Trichloroethane	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,1,2-Trichloroethane	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Trichloroethene (TCE)	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Trichlorofluoromethane	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
1,2,3-Trichloropropane	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-002 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (0-0.5') Dup
Collection Date: 7/18/2012 4:20:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.978		µg/Kg-dry	1	7/20/2012 3:32:59 PM
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	7/20/2012 3:32:59 PM
Surr: 4-Bromofluorobenzene	80.4	70-130		%REC	1	7/20/2012 3:32:59 PM
Surr: Dibromofluoromethane	95.5	70-130		%REC	1	7/20/2012 3:32:59 PM
Surr: Toluene-d8	108	70-130		%REC	1	7/20/2012 3:32:59 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-003 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (1.5-2')
Collection Date: 7/18/2012 4:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	1200	200		mg/Kg	20	7/22/2012 12:05:33 AM
Motor Oil Range Organics (MRO)	ND	990		mg/Kg	20	7/22/2012 12:05:33 AM
Surr: DNOP	0	77.6-140	S	%REC	20	7/22/2012 12:05:33 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	7/26/2012 6:54:16 PM
Surr: BFB	101	84-116		%REC	10	7/26/2012 6:54:16 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.090	0.033		mg/Kg	1	8/3/2012 4:17:19 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	12		mg/Kg	5	8/10/2012 7:15:32 PM
Arsenic	ND	12		mg/Kg	5	8/10/2012 7:15:32 PM
Barium	500	5.0		mg/Kg	50	8/10/2012 7:17:59 PM
Beryllium	ND	0.75		mg/Kg	5	8/10/2012 7:15:32 PM
Cadmium	ND	0.50		mg/Kg	5	8/10/2012 7:15:32 PM
Chromium	10	1.5		mg/Kg	5	8/10/2012 7:15:32 PM
Cobalt	3.1	1.5		mg/Kg	5	8/10/2012 7:15:32 PM
Iron	8800	500		mg/Kg	500	8/10/2012 7:20:23 PM
Lead	1.9	1.2		mg/Kg	5	8/10/2012 7:15:32 PM
Manganese	930	5.0		mg/Kg	50	8/10/2012 7:17:59 PM
Nickel	5.9	2.5		mg/Kg	5	8/10/2012 7:15:32 PM
Selenium	ND	12		mg/Kg	5	8/10/2012 7:15:32 PM
Silver	ND	1.2		mg/Kg	5	8/10/2012 7:15:32 PM
Vanadium	19	12		mg/Kg	5	8/10/2012 7:15:32 PM
Zinc	28	12		mg/Kg	5	8/10/2012 7:15:32 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Acenaphthylene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Aniline	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Anthracene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Azobenzene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Benz(a)anthracene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Benzo(a)pyrene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Benzo(b)fluoranthene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Benzo(g,h,i)perylene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Benzo(k)fluoranthene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Benzoic acid	ND	2.5		mg/Kg	1	7/27/2012 10:54:46 AM
Benzyl alcohol	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Bis(2-chloroethoxy)methane	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Bis(2-chloroethyl)ether	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Bis(2-chloroisopropyl)ether	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-003 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (1.5-2')
Collection Date: 7/18/2012 4:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/27/2012 10:54:46 AM
4-Bromophenyl phenyl ether	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Butyl benzyl phthalate	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Carbazole	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 10:54:46 AM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/27/2012 10:54:46 AM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/27/2012 10:54:46 AM
2-Chlorophenol	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
4-Chlorophenyl phenyl ether	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Chrysene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/27/2012 10:54:46 AM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/27/2012 10:54:46 AM
Dibenz(a,h)anthracene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Dibenzofuran	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
1,2-Dichlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
1,3-Dichlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
1,4-Dichlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/27/2012 10:54:46 AM
Diethyl phthalate	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Dimethyl phthalate	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/27/2012 10:54:46 AM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/27/2012 10:54:46 AM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 10:54:46 AM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/27/2012 10:54:46 AM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 10:54:46 AM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 10:54:46 AM
Fluoranthene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Fluorene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Hexachlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Hexachlorobutadiene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Hexachlorocyclopentadiene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Hexachloroethane	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Indeno(1,2,3-cd)pyrene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Isophorone	ND	2.5		mg/Kg	1	7/27/2012 10:54:46 AM
1-Methylnaphthalene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
2-Methylnaphthalene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
2-Methylphenol	ND	2.5		mg/Kg	1	7/27/2012 10:54:46 AM
3+4-Methylphenol	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
N-Nitrosodi-n-propylamine	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
N-Nitrosodiphenylamine	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Naphthalene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
2-Nitroaniline	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-003 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (1.5-2')
Collection Date: 7/18/2012 4:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
3-Nitroaniline	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/27/2012 10:54:46 AM
Nitrobenzene	ND	2.5		mg/Kg	1	7/27/2012 10:54:46 AM
2-Nitrophenol	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/27/2012 10:54:46 AM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/27/2012 10:54:46 AM
Phenanthrene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Phenol	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Pyrene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Pyridine	ND	2.5		mg/Kg	1	7/27/2012 10:54:46 AM
1,2,4-Trichlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
2,4,5-Trichlorophenol	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
2,4,6-Trichlorophenol	ND	0.99		mg/Kg	1	7/27/2012 10:54:46 AM
Surr: 2,4,6-Tribromophenol	56.7	20.1-121		%REC	1	7/27/2012 10:54:46 AM
Surr: 2-Fluorobiphenyl	51.0	19-133		%REC	1	7/27/2012 10:54:46 AM
Surr: 2-Fluorophenol	46.7	20.2-108		%REC	1	7/27/2012 10:54:46 AM
Surr: 4-Terphenyl-d14	61.6	18.9-115		%REC	1	7/27/2012 10:54:46 AM
Surr: Nitrobenzene-d5	56.6	20.8-123		%REC	1	7/27/2012 10:54:46 AM
Surr: Phenol-d5	46.0	19.8-115		%REC	1	7/27/2012 10:54:46 AM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
Toluene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
Ethylbenzene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
1,2,4-Trimethylbenzene	1.5	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
Naphthalene	ND	1.0		mg/Kg	10	7/21/2012 12:18:50 PM
1-Methylnaphthalene	ND	2.0		mg/Kg	10	7/21/2012 12:18:50 PM
2-Methylnaphthalene	ND	2.0		mg/Kg	10	7/21/2012 12:18:50 PM
Acetone	ND	7.5		mg/Kg	10	7/21/2012 12:18:50 PM
Bromobenzene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
Bromoform	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
Bromomethane	ND	1.5		mg/Kg	10	7/21/2012 12:18:50 PM
2-Butanone	ND	5.0		mg/Kg	10	7/21/2012 12:18:50 PM
Carbon disulfide	ND	5.0		mg/Kg	10	7/21/2012 12:18:50 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	7/21/2012 12:18:50 PM
Chlorobenzene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
Chloroethane	ND	1.0		mg/Kg	10	7/21/2012 12:18:50 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-003 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (1.5-2')
Collection Date: 7/18/2012 4:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
Chloromethane	ND	1.5		mg/Kg	10	7/21/2012 12:18:50 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	7/21/2012 12:18:50 PM
Dibromochloromethane	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
Dibromomethane	ND	1.0		mg/Kg	10	7/21/2012 12:18:50 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	7/21/2012 12:18:50 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	7/21/2012 12:18:50 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	7/21/2012 12:18:50 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	7/21/2012 12:18:50 PM
2-Hexanone	ND	5.0		mg/Kg	10	7/21/2012 12:18:50 PM
Isopropylbenzene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	7/21/2012 12:18:50 PM
Methylene chloride	ND	1.5		mg/Kg	10	7/21/2012 12:18:50 PM
n-Butylbenzene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
n-Propylbenzene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
sec-Butylbenzene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
Styrene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	7/21/2012 12:18:50 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	7/21/2012 12:18:50 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMWU 14-9 (1.5-2')
Project: SWMU NO.14
Collection Date: 7/18/2012 4:30:00 PM
Lab ID: 1207922-003 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	0.50		mg/Kg	10	7/21/2012 12:18:50 PM
Xylenes, Total	2.4	1.0		mg/Kg	10	7/21/2012 12:18:50 PM
Surr: 1,2-Dichloroethane-d4	90.4	70-130		%REC	10	7/21/2012 12:18:50 PM
Surr: 4-Bromofluorobenzene	94.3	70-130		%REC	10	7/21/2012 12:18:50 PM
Surr: Dibromofluoromethane	89.7	70-130		%REC	10	7/21/2012 12:18:50 PM
Surr: Toluene-d8	104	70-130		%REC	10	7/21/2012 12:18:50 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-004 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (4-6')
Collection Date: 7/18/2012 4:40:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	1800	98		mg/Kg	10	7/21/2012 8:25:23 PM
Motor Oil Range Organics (MRO)	ND	490		mg/Kg	10	7/21/2012 8:25:23 PM
Surr: DNOP	0	77.6-140	S	%REC	10	7/21/2012 8:25:23 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	7/26/2012 7:23:02 PM
Surr: BFB	109	84-116		%REC	20	7/26/2012 7:23:02 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/3/2012 4:19:07 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	13		mg/Kg	5	8/10/2012 7:22:58 PM
Arsenic	ND	13		mg/Kg	5	8/10/2012 7:22:58 PM
Barium	200	0.50		mg/Kg	5	8/10/2012 7:22:58 PM
Beryllium	1.1	0.75		mg/Kg	5	8/10/2012 7:22:58 PM
Cadmium	ND	0.50		mg/Kg	5	8/10/2012 7:22:58 PM
Chromium	12	1.5		mg/Kg	5	8/10/2012 7:22:58 PM
Cobalt	4.9	1.5		mg/Kg	5	8/10/2012 7:22:58 PM
Iron	16000	500		mg/Kg	500	8/10/2012 7:27:49 PM
Lead	2.4	1.3		mg/Kg	5	8/10/2012 7:22:58 PM
Manganese	280	5.0		mg/Kg	50	8/10/2012 7:25:24 PM
Nickel	8.5	2.5		mg/Kg	5	8/10/2012 7:22:58 PM
Selenium	ND	13		mg/Kg	5	8/10/2012 7:22:58 PM
Silver	ND	1.3		mg/Kg	5	8/10/2012 7:22:58 PM
Vanadium	20	13		mg/Kg	5	8/10/2012 7:22:58 PM
Zinc	17	13		mg/Kg	5	8/10/2012 7:22:58 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Acenaphthylene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Aniline	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Anthracene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Azobenzene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Benz(a)anthracene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Benzoic acid	ND	1.0		mg/Kg	1	7/27/2012 11:24:15 AM
Benzyl alcohol	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-004 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (4-6')
Collection Date: 7/18/2012 4:40:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	7/27/2012 11:24:15 AM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Carbazole	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	7/27/2012 11:24:15 AM
4-Chloroaniline	ND	1.0		mg/Kg	1	7/27/2012 11:24:15 AM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	7/27/2012 11:24:15 AM
2-Chlorophenol	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Chrysene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 11:24:15 AM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	7/27/2012 11:24:15 AM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Dibenzofuran	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	7/27/2012 11:24:15 AM
Diethyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Dimethyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	7/27/2012 11:24:15 AM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	7/27/2012 11:24:15 AM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	7/27/2012 11:24:15 AM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	7/27/2012 11:24:15 AM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	7/27/2012 11:24:15 AM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	7/27/2012 11:24:15 AM
Fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Fluorene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Hexachlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Hexachloroethane	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Isophorone	ND	1.0		mg/Kg	1	7/27/2012 11:24:15 AM
1-Methylnaphthalene	5.1	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
2-Methylnaphthalene	8.0	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
2-Methylphenol	ND	1.0		mg/Kg	1	7/27/2012 11:24:15 AM
3+4-Methylphenol	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Naphthalene	1.8	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
2-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-004 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (4-6')
Collection Date: 7/18/2012 4:40:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
4-Nitroaniline	ND	0.80		mg/Kg	1	7/27/2012 11:24:15 AM
Nitrobenzene	ND	1.0		mg/Kg	1	7/27/2012 11:24:15 AM
2-Nitrophenol	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
4-Nitrophenol	ND	0.50		mg/Kg	1	7/27/2012 11:24:15 AM
Pentachlorophenol	ND	0.80		mg/Kg	1	7/27/2012 11:24:15 AM
Phenanthrene	1.1	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Phenol	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Pyrene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Pyridine	ND	1.0		mg/Kg	1	7/27/2012 11:24:15 AM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 11:24:15 AM
Surr: 2,4,6-Tribromophenol	104	20.1-121		%REC	1	7/27/2012 11:24:15 AM
Surr: 2-Fluorobiphenyl	94.3	19-133		%REC	1	7/27/2012 11:24:15 AM
Surr: 2-Fluorophenol	71.3	20.2-108		%REC	1	7/27/2012 11:24:15 AM
Surr: 4-Terphenyl-d14	95.3	18.9-115		%REC	1	7/27/2012 11:24:15 AM
Surr: Nitrobenzene-d5	94.3	20.8-123		%REC	1	7/27/2012 11:24:15 AM
Surr: Phenol-d5	102	19.8-115		%REC	1	7/27/2012 11:24:15 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	0.69	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
Toluene	2.8	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
Ethylbenzene	1.1	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
1,2,4-Trimethylbenzene	3.2	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
1,3,5-Trimethylbenzene	0.92	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
Naphthalene	1.1	1.0		mg/Kg	10	7/21/2012 1:15:52 PM
1-Methylnaphthalene	2.9	2.0		mg/Kg	10	7/21/2012 1:15:52 PM
2-Methylnaphthalene	4.7	2.0		mg/Kg	10	7/21/2012 1:15:52 PM
Acetone	ND	7.5		mg/Kg	10	7/21/2012 1:15:52 PM
Bromobenzene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
Bromoform	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
Bromomethane	ND	1.5		mg/Kg	10	7/21/2012 1:15:52 PM
2-Butanone	ND	5.0		mg/Kg	10	7/21/2012 1:15:52 PM
Carbon disulfide	ND	5.0		mg/Kg	10	7/21/2012 1:15:52 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	7/21/2012 1:15:52 PM
Chlorobenzene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
Chloroethane	ND	1.0		mg/Kg	10	7/21/2012 1:15:52 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-004 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (4-6')
Collection Date: 7/18/2012 4:40:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
Chloromethane	ND	1.5		mg/Kg	10	7/21/2012 1:15:52 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	7/21/2012 1:15:52 PM
Dibromochloromethane	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
Dibromomethane	ND	1.0		mg/Kg	10	7/21/2012 1:15:52 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	7/21/2012 1:15:52 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	7/21/2012 1:15:52 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	7/21/2012 1:15:52 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	7/21/2012 1:15:52 PM
2-Hexanone	ND	5.0		mg/Kg	10	7/21/2012 1:15:52 PM
Isopropylbenzene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	7/21/2012 1:15:52 PM
Methylene chloride	ND	1.5		mg/Kg	10	7/21/2012 1:15:52 PM
n-Butylbenzene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
n-Propylbenzene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
sec-Butylbenzene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
Styrene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	7/21/2012 1:15:52 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	7/21/2012 1:15:52 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMWU 14-9 (4-6')
Project: SWMU NO.14
Collection Date: 7/18/2012 4:40:00 PM
Lab ID: 1207922-004 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	0.50		mg/Kg	10	7/21/2012 1:15:52 PM
Xylenes, Total	5.6	1.0		mg/Kg	10	7/21/2012 1:15:52 PM
Surr: 1,2-Dichloroethane-d4	96.2	70-130		%REC	10	7/21/2012 1:15:52 PM
Surr: 4-Bromofluorobenzene	85.3	70-130		%REC	10	7/21/2012 1:15:52 PM
Surr: Dibromofluoromethane	95.5	70-130		%REC	10	7/21/2012 1:15:52 PM
Surr: Toluene-d8	103	70-130		%REC	10	7/21/2012 1:15:52 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-005 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (13-14')
Collection Date: 7/18/2012 5:00:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/21/2012 6:34:36 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/21/2012 6:34:36 PM
Surr: DNOP	117	77.6-140		%REC	1	7/21/2012 6:34:36 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/26/2012 7:51:46 PM
Surr: BFB	101	84-116		%REC	1	7/26/2012 7:51:46 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/3/2012 4:20:55 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	13		mg/Kg	5	8/10/2012 7:30:27 PM
Arsenic	ND	13		mg/Kg	5	8/10/2012 7:30:27 PM
Barium	190	0.50		mg/Kg	5	8/10/2012 7:30:27 PM
Beryllium	1.3	0.75		mg/Kg	5	8/10/2012 7:30:27 PM
Cadmium	ND	0.50		mg/Kg	5	8/10/2012 7:30:27 PM
Chromium	19	1.5		mg/Kg	5	8/10/2012 7:30:27 PM
Cobalt	6.5	1.5		mg/Kg	5	8/10/2012 7:30:27 PM
Iron	23000	500		mg/Kg	500	8/10/2012 7:45:36 PM
Lead	ND	1.3		mg/Kg	5	8/10/2012 7:30:27 PM
Manganese	460	5.0		mg/Kg	50	8/10/2012 7:32:53 PM
Nickel	13	2.5		mg/Kg	5	8/10/2012 7:30:27 PM
Selenium	ND	13		mg/Kg	5	8/10/2012 7:30:27 PM
Silver	ND	1.3		mg/Kg	5	8/10/2012 7:30:27 PM
Vanadium	29	13		mg/Kg	5	8/10/2012 7:30:27 PM
Zinc	27	13		mg/Kg	5	8/10/2012 7:30:27 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Acenaphthylene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Aniline	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Anthracene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Azobenzene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Benzoic acid	ND	0.50		mg/Kg	1	7/27/2012 11:53:38 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-005 **Matrix:** SOIL

Client Sample ID: SMWU 14-9 (13-14')
Collection Date: 7/18/2012 5:00:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/27/2012 11:53:38 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Carbazole	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/27/2012 11:53:38 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	7/27/2012 11:53:38 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/27/2012 11:53:38 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Chrysene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/27/2012 11:53:38 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	7/27/2012 11:53:38 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Dibenzofuran	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/27/2012 11:53:38 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 11:53:38 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/27/2012 11:53:38 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/27/2012 11:53:38 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/27/2012 11:53:38 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/27/2012 11:53:38 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/27/2012 11:53:38 AM
Fluoranthene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Fluorene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Hexachloroethane	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Isophorone	ND	0.50		mg/Kg	1	7/27/2012 11:53:38 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
2-Methylphenol	ND	0.50		mg/Kg	1	7/27/2012 11:53:38 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Naphthalene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMWU 14-9 (13-14')
Project: SWMU NO.14
Collection Date: 7/18/2012 5:00:00 PM
Lab ID: 1207922-005 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 11:53:38 AM
Nitrobenzene	ND	0.50		mg/Kg	1	7/27/2012 11:53:38 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	7/27/2012 11:53:38 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	7/27/2012 11:53:38 AM
Phenanthrene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Phenol	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Pyrene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Pyridine	ND	0.50		mg/Kg	1	7/27/2012 11:53:38 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/27/2012 11:53:38 AM
Surr: 2,4,6-Tribromophenol	90.0	20.1-121		%REC	1	7/27/2012 11:53:38 AM
Surr: 2-Fluorobiphenyl	79.1	19-133		%REC	1	7/27/2012 11:53:38 AM
Surr: 2-Fluorophenol	78.2	20.2-108		%REC	1	7/27/2012 11:53:38 AM
Surr: 4-Terphenyl-d14	82.5	18.9-115		%REC	1	7/27/2012 11:53:38 AM
Surr: Nitrobenzene-d5	80.4	20.8-123		%REC	1	7/27/2012 11:53:38 AM
Surr: Phenol-d5	80.3	19.8-115		%REC	1	7/27/2012 11:53:38 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Toluene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Ethylbenzene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Xylenes, Total	ND	2.28		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Methyl tert-butyl ether (MTBE)	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,2,4-Trimethylbenzene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,3,5-Trimethylbenzene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,2-Dichloroethane (EDC)	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,2-Dibromoethane (EDB)	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Naphthalene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1-Methylnaphthalene	ND	4.56		µg/Kg-dry	1	7/20/2012 5:34:03 PM
2-Methylnaphthalene	ND	4.56		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Acetone	ND	11.4		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Bromobenzene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Bromodichloromethane	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Bromoform	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
2-Butanone	ND	2.28		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Carbon tetrachloride	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Chlorobenzene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Chloroethane	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Chloroform	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMWU 14-9 (13-14')
Project: SWMU NO.14
Collection Date: 7/18/2012 5:00:00 PM
Lab ID: 1207922-005 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
2-Chlorotoluene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Carbon disulfide	ND	2.28		µg/Kg-dry	1	7/20/2012 5:34:03 PM
4-Chlorotoluene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
cis-1,2-DCE	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
cis-1,3-Dichloropropene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,2-Dibromo-3-chloropropane	ND	2.28		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Dibromochloromethane	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Dibromomethane	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,2-Dichlorobenzene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,3-Dichlorobenzene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,4-Dichlorobenzene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Dichlorodifluoromethane	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,1-Dichloroethane	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,1-Dichloroethene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,2-Dichloropropane	ND	2.28		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,3-Dichloropropane	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
2,2-Dichloropropane	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,1-Dichloropropene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Hexachlorobutadiene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Isopropylbenzene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
4-Isopropyltoluene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Methylene chloride	ND	2.28		µg/Kg-dry	1	7/20/2012 5:34:03 PM
n-Butylbenzene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
2-Hexanone	ND	2.28		µg/Kg-dry	1	7/20/2012 5:34:03 PM
n-Propylbenzene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
sec-Butylbenzene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Styrene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
4-Methyl-2-pentanone	ND	2.28		µg/Kg-dry	1	7/20/2012 5:34:03 PM
tert-Butylbenzene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,1,1,2-Tetrachloroethane	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,1,2,2-Tetrachloroethane	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Tetrachloroethene (PCE)	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
trans-1,2-DCE	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
trans-1,3-Dichloropropene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,2,3-Trichlorobenzene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,2,4-Trichlorobenzene	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,1,1-Trichloroethane	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,1,2-Trichloroethane	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Trichloroethene (TCE)	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Trichlorofluoromethane	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
1,2,3-Trichloropropane	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMWU 14-9 (13-14')
Project: SWMU NO.14
Collection Date: 7/18/2012 5:00:00 PM
Lab ID: 1207922-005 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	1.14		µg/Kg-dry	1	7/20/2012 5:34:03 PM
Surr: 1,2-Dichloroethane-d4	90.4	70-130		%REC	1	7/20/2012 5:34:03 PM
Surr: 4-Bromofluorobenzene	97.4	70-130		%REC	1	7/20/2012 5:34:03 PM
Surr: Dibromofluoromethane	89.3	70-130		%REC	1	7/20/2012 5:34:03 PM
Surr: Toluene-d8	101	70-130		%REC	1	7/20/2012 5:34:03 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-006 **Matrix:** SOIL

Client Sample ID: SMWU 14-7 (0-0.5')
Collection Date: 7/18/2012 6:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	3900	200		mg/Kg	20	7/21/2012 9:31:35 PM
Motor Oil Range Organics (MRO)	ND	990		mg/Kg	20	7/21/2012 9:31:35 PM
Surr: DNOP	0	77.6-140	S	%REC	20	7/21/2012 9:31:35 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	7/26/2012 8:20:29 PM
Surr: BFB	102	84-116		%REC	50	7/26/2012 8:20:29 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/3/2012 4:26:17 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	13		mg/Kg	5	8/10/2012 7:48:14 PM
Arsenic	ND	13		mg/Kg	5	8/10/2012 7:48:14 PM
Barium	650	5.0		mg/Kg	50	8/10/2012 7:50:38 PM
Beryllium	0.76	0.75		mg/Kg	5	8/10/2012 7:48:14 PM
Cadmium	ND	0.50		mg/Kg	5	8/10/2012 7:48:14 PM
Chromium	9.6	1.5		mg/Kg	5	8/10/2012 7:48:14 PM
Cobalt	4.1	1.5		mg/Kg	5	8/10/2012 7:48:14 PM
Iron	15000	500		mg/Kg	500	8/10/2012 7:53:02 PM
Lead	3.5	1.3		mg/Kg	5	8/10/2012 7:48:14 PM
Manganese	600	5.0		mg/Kg	50	8/10/2012 7:50:38 PM
Nickel	6.8	2.5		mg/Kg	5	8/10/2012 7:48:14 PM
Selenium	ND	13		mg/Kg	5	8/10/2012 7:48:14 PM
Silver	ND	1.3		mg/Kg	5	8/10/2012 7:48:14 PM
Vanadium	22	13		mg/Kg	5	8/10/2012 7:48:14 PM
Zinc	30	13		mg/Kg	5	8/10/2012 7:48:14 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Aniline	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Anthracene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Azobenzene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/27/2012 12:23:05 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMWU 14-7 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/18/2012 6:30:00 PM
Lab ID: 1207922-006 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/27/2012 12:23:05 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Carbazole	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 12:23:05 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/27/2012 12:23:05 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/27/2012 12:23:05 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Chrysene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/27/2012 12:23:05 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/27/2012 12:23:05 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/27/2012 12:23:05 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/27/2012 12:23:05 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/27/2012 12:23:05 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 12:23:05 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/27/2012 12:23:05 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 12:23:05 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 12:23:05 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Fluorene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Isophorone	ND	2.5		mg/Kg	1	7/27/2012 12:23:05 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/27/2012 12:23:05 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Naphthalene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-006 **Matrix:** SOIL

Client Sample ID: SMWU 14-7 (0-0.5')
Collection Date: 7/18/2012 6:30:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/27/2012 12:23:05 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/27/2012 12:23:05 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/27/2012 12:23:05 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/27/2012 12:23:05 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Phenol	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Pyrene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Pyridine	ND	2.5		mg/Kg	1	7/27/2012 12:23:05 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 12:23:05 PM
Surr: 2,4,6-Tribromophenol	116	20.1-121		%REC	1	7/27/2012 12:23:05 PM
Surr: 2-Fluorobiphenyl	96.1	19-133		%REC	1	7/27/2012 12:23:05 PM
Surr: 2-Fluorophenol	107	20.2-108		%REC	1	7/27/2012 12:23:05 PM
Surr: 4-Terphenyl-d14	113	18.9-115		%REC	1	7/27/2012 12:23:05 PM
Surr: Nitrobenzene-d5	125	20.8-123	S	%REC	1	7/27/2012 12:23:05 PM
Surr: Phenol-d5	106	19.8-115		%REC	1	7/27/2012 12:23:05 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
Toluene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
Ethylbenzene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,2,4-Trimethylbenzene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,3,5-Trimethylbenzene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
Naphthalene	ND	2.0		mg/Kg	20	7/23/2012 8:18:11 PM
1-Methylnaphthalene	ND	4.0		mg/Kg	20	7/23/2012 8:18:11 PM
2-Methylnaphthalene	ND	4.0		mg/Kg	20	7/23/2012 8:18:11 PM
Acetone	ND	15		mg/Kg	20	7/23/2012 8:18:11 PM
Bromobenzene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
Bromoform	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
Bromomethane	ND	3.0		mg/Kg	20	7/23/2012 8:18:11 PM
2-Butanone	ND	10		mg/Kg	20	7/23/2012 8:18:11 PM
Carbon disulfide	ND	10		mg/Kg	20	7/23/2012 8:18:11 PM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/23/2012 8:18:11 PM
Chlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
Chloroethane	ND	2.0		mg/Kg	20	7/23/2012 8:18:11 PM

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-006 **Matrix:** SOIL

Client Sample ID: SMWU 14-7 (0-0.5')
Collection Date: 7/18/2012 6:30:00 PM
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Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
Chloromethane	ND	3.0		mg/Kg	20	7/23/2012 8:18:11 PM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/23/2012 8:18:11 PM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
Dibromomethane	ND	2.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/23/2012 8:18:11 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/23/2012 8:18:11 PM
2-Hexanone	ND	10		mg/Kg	20	7/23/2012 8:18:11 PM
Isopropylbenzene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
4-Isopropyltoluene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/23/2012 8:18:11 PM
Methylene chloride	ND	3.0		mg/Kg	20	7/23/2012 8:18:11 PM
n-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
n-Propylbenzene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
sec-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
Styrene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,1,2-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/23/2012 8:18:11 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

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Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	1.0		mg/Kg	20	7/23/2012 8:18:11 PM
Xylenes, Total	ND	2.0		mg/Kg	20	7/23/2012 8:18:11 PM
Surr: 1,2-Dichloroethane-d4	90.2	70-130		%REC	20	7/23/2012 8:18:11 PM
Surr: 4-Bromofluorobenzene	77.1	70-130		%REC	20	7/23/2012 8:18:11 PM
Surr: Dibromofluoromethane	99.6	70-130		%REC	20	7/23/2012 8:18:11 PM
Surr: Toluene-d8	100	70-130		%REC	20	7/23/2012 8:18:11 PM

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMWU 14-7 (1.5-2')
Project: SWMU NO.14
Collection Date: 7/18/2012 6:50:00 PM
Lab ID: 1207922-007 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	2100	97		mg/Kg	10	7/21/2012 8:47:31 PM
Motor Oil Range Organics (MRO)	ND	490		mg/Kg	10	7/21/2012 8:47:31 PM
Surr: DNOP	0	77.6-140	S	%REC	10	7/21/2012 8:47:31 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	7/26/2012 8:49:13 PM
Surr: BFB	111	84-116		%REC	10	7/26/2012 8:49:13 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/3/2012 4:28:08 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	13		mg/Kg	5	8/10/2012 7:55:37 PM
Arsenic	ND	13		mg/Kg	5	8/10/2012 7:55:37 PM
Barium	550	5.0		mg/Kg	50	8/10/2012 7:58:01 PM
Beryllium	ND	0.75		mg/Kg	5	8/10/2012 7:55:37 PM
Cadmium	ND	0.50		mg/Kg	5	8/10/2012 7:55:37 PM
Chromium	7.1	1.5		mg/Kg	5	8/10/2012 7:55:37 PM
Cobalt	3.7	1.5		mg/Kg	5	8/10/2012 7:55:37 PM
Iron	11000	500		mg/Kg	500	8/10/2012 8:00:26 PM
Lead	3.2	1.3		mg/Kg	5	8/10/2012 7:55:37 PM
Manganese	1100	5.0		mg/Kg	50	8/10/2012 7:58:01 PM
Nickel	5.6	2.5		mg/Kg	5	8/10/2012 7:55:37 PM
Selenium	ND	13		mg/Kg	5	8/10/2012 7:55:37 PM
Silver	ND	1.3		mg/Kg	5	8/10/2012 7:55:37 PM
Vanadium	18	13		mg/Kg	5	8/10/2012 7:55:37 PM
Zinc	ND	13		mg/Kg	5	8/10/2012 7:55:37 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Acenaphthylene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Aniline	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Anthracene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Azobenzene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Benzoic acid	ND	1.0		mg/Kg	1	7/27/2012 12:52:32 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM

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CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMWU 14-7 (1.5-2')
Project: SWMU NO.14
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Lab ID: 1207922-007 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	7/27/2012 12:52:32 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Carbazole	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	7/27/2012 12:52:32 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	7/27/2012 12:52:32 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	7/27/2012 12:52:32 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Chrysene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 12:52:32 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	7/27/2012 12:52:32 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Dibenzofuran	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	7/27/2012 12:52:32 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
2,4-Dichlorophenol	ND	0.81		mg/Kg	1	7/27/2012 12:52:32 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	7/27/2012 12:52:32 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	7/27/2012 12:52:32 PM
2,4-Dinitrophenol	ND	0.81		mg/Kg	1	7/27/2012 12:52:32 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	7/27/2012 12:52:32 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	7/27/2012 12:52:32 PM
Fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Fluorene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Hexachloroethane	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Isophorone	ND	1.0		mg/Kg	1	7/27/2012 12:52:32 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
2-Methylphenol	ND	1.0		mg/Kg	1	7/27/2012 12:52:32 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Naphthalene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM

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EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
4-Nitroaniline	ND	0.81		mg/Kg	1	7/27/2012 12:52:32 PM
Nitrobenzene	ND	1.0		mg/Kg	1	7/27/2012 12:52:32 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	7/27/2012 12:52:32 PM
Pentachlorophenol	ND	0.81		mg/Kg	1	7/27/2012 12:52:32 PM
Phenanthrene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Phenol	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Pyrene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Pyridine	ND	1.0		mg/Kg	1	7/27/2012 12:52:32 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 12:52:32 PM
Surr: 2,4,6-Tribromophenol	44.6	20.1-121		%REC	1	7/27/2012 12:52:32 PM
Surr: 2-Fluorobiphenyl	39.7	19-133		%REC	1	7/27/2012 12:52:32 PM
Surr: 2-Fluorophenol	40.4	20.2-108		%REC	1	7/27/2012 12:52:32 PM
Surr: 4-Terphenyl-d14	44.0	18.9-115		%REC	1	7/27/2012 12:52:32 PM
Surr: Nitrobenzene-d5	43.0	20.8-123		%REC	1	7/27/2012 12:52:32 PM
Surr: Phenol-d5	37.9	19.8-115		%REC	1	7/27/2012 12:52:32 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	12.6	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Toluene	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Ethylbenzene	6.91	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Xylenes, Total	7.95	1.80		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Methyl tert-butyl ether (MTBE)	10.2	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,2,4-Trimethylbenzene	5.62	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,3,5-Trimethylbenzene	4.87	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,2-Dichloroethane (EDC)	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,2-Dibromoethane (EDB)	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Naphthalene	2.18	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1-Methylnaphthalene	5.02	3.59		µg/Kg-dry	1	7/20/2012 6:34:19 PM
2-Methylnaphthalene	4.02	3.59		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Acetone	ND	8.98		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Bromobenzene	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Bromodichloromethane	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Bromoform	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
2-Butanone	ND	1.80		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Carbon tetrachloride	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Chlorobenzene	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Chloroethane	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Chloroform	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMWU 14-7 (1.5-2')
Project: SWMU NO.14
Collection Date: 7/18/2012 6:50:00 PM
Lab ID: 1207922-007 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
2-Chlorotoluene	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Carbon disulfide	ND	1.80		µg/Kg-dry	1	7/20/2012 6:34:19 PM
4-Chlorotoluene	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
cis-1,2-DCE	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
cis-1,3-Dichloropropene	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,2-Dibromo-3-chloropropane	ND	1.80		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Dibromochloromethane	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Dibromomethane	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,2-Dichlorobenzene	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,3-Dichlorobenzene	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,4-Dichlorobenzene	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Dichlorodifluoromethane	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,1-Dichloroethane	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,1-Dichloroethene	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,2-Dichloropropane	ND	1.80		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,3-Dichloropropane	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
2,2-Dichloropropane	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,1-Dichloropropene	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Hexachlorobutadiene	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Isopropylbenzene	2.08	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
4-Isopropyltoluene	1.70	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Methylene chloride	ND	1.80		µg/Kg-dry	1	7/20/2012 6:34:19 PM
n-Butylbenzene	1.16	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
2-Hexanone	ND	1.80		µg/Kg-dry	1	7/20/2012 6:34:19 PM
n-Propylbenzene	2.57	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
sec-Butylbenzene	2.03	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Styrene	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
4-Methyl-2-pentanone	ND	1.80		µg/Kg-dry	1	7/20/2012 6:34:19 PM
tert-Butylbenzene	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,1,1,2-Tetrachloroethane	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,1,2,2-Tetrachloroethane	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Tetrachloroethene (PCE)	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
trans-1,2-DCE	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
trans-1,3-Dichloropropene	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,2,3-Trichlorobenzene	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,2,4-Trichlorobenzene	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,1,1-Trichloroethane	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,1,2-Trichloroethane	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Trichloroethene (TCE)	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Trichlorofluoromethane	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
1,2,3-Trichloropropane	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-007 **Matrix:** SOIL

Client Sample ID: SMWU 14-7 (1.5-2')
Collection Date: 7/18/2012 6:50:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.898		µg/Kg-dry	1	7/20/2012 6:34:19 PM
Surr: 1,2-Dichloroethane-d4	108	70-130		%REC	1	7/20/2012 6:34:19 PM
Surr: 4-Bromofluorobenzene	130	70-130	S	%REC	1	7/20/2012 6:34:19 PM
Surr: Dibromofluoromethane	101	70-130		%REC	1	7/20/2012 6:34:19 PM
Surr: Toluene-d8	93.1	70-130		%REC	1	7/20/2012 6:34:19 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-008 **Matrix:** SOIL

Client Sample ID: SMWU 14-7 (6-8')
Collection Date: 7/18/2012 7:10:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	1000	100		mg/Kg	10	7/21/2012 9:09:30 PM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	7/21/2012 9:09:30 PM
Surr: DNOP	0	77.6-140	S	%REC	10	7/21/2012 9:09:30 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	150	50		mg/Kg	10	7/27/2012 1:36:24 AM
Surr: BFB	187	84-116	S	%REC	10	7/27/2012 1:36:24 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/3/2012 4:29:56 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	13		mg/Kg	5	8/10/2012 8:03:02 PM
Arsenic	ND	13		mg/Kg	5	8/10/2012 8:03:02 PM
Barium	2400	5.0		mg/Kg	50	8/10/2012 8:05:24 PM
Beryllium	1.2	0.75		mg/Kg	5	8/10/2012 8:03:02 PM
Cadmium	ND	0.50		mg/Kg	5	8/10/2012 8:03:02 PM
Chromium	14	1.5		mg/Kg	5	8/10/2012 8:03:02 PM
Cobalt	6.0	1.5		mg/Kg	5	8/10/2012 8:03:02 PM
Iron	20000	500		mg/Kg	500	8/10/2012 8:07:51 PM
Lead	2.6	1.3		mg/Kg	5	8/10/2012 8:03:02 PM
Manganese	400	5.0		mg/Kg	50	8/10/2012 8:05:24 PM
Nickel	11	2.5		mg/Kg	5	8/10/2012 8:03:02 PM
Selenium	ND	13		mg/Kg	5	8/10/2012 8:03:02 PM
Silver	ND	1.3		mg/Kg	5	8/10/2012 8:03:02 PM
Vanadium	27	13		mg/Kg	5	8/10/2012 8:03:02 PM
Zinc	22	13		mg/Kg	5	8/10/2012 8:03:02 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Acenaphthylene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Aniline	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Anthracene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Azobenzene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Benzoic acid	ND	1.0		mg/Kg	1	7/27/2012 2:20:48 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMWU 14-7 (6-8')
Project: SWMU NO.14
Collection Date: 7/18/2012 7:10:00 PM
Lab ID: 1207922-008 **Matrix:** SOIL **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	7/27/2012 2:20:48 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Carbazole	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	7/27/2012 2:20:48 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	7/27/2012 2:20:48 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	7/27/2012 2:20:48 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Chrysene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 2:20:48 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	7/27/2012 2:20:48 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Dibenzofuran	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	7/27/2012 2:20:48 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	7/27/2012 2:20:48 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	7/27/2012 2:20:48 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	7/27/2012 2:20:48 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	7/27/2012 2:20:48 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	7/27/2012 2:20:48 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	7/27/2012 2:20:48 PM
Fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Fluorene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Hexachloroethane	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Isophorone	ND	1.0		mg/Kg	1	7/27/2012 2:20:48 PM
1-Methylnaphthalene	6.5	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
2-Methylnaphthalene	9.2	2.0		mg/Kg	5	7/30/2012 4:35:23 PM
2-Methylphenol	ND	1.0		mg/Kg	1	7/27/2012 2:20:48 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Naphthalene	2.2	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-008 **Matrix:** SOIL

Client Sample ID: SMWU 14-7 (6-8')
Collection Date: 7/18/2012 7:10:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	7/27/2012 2:20:48 PM
Nitrobenzene	ND	1.0		mg/Kg	1	7/27/2012 2:20:48 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	7/27/2012 2:20:48 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	7/27/2012 2:20:48 PM
Phenanthrene	2.0	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Phenol	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Pyrene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Pyridine	ND	1.0		mg/Kg	1	7/27/2012 2:20:48 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 2:20:48 PM
Surr: 2,4,6-Tribromophenol	71.5	20.1-121		%REC	1	7/27/2012 2:20:48 PM
Surr: 2-Fluorobiphenyl	64.8	19-133		%REC	1	7/27/2012 2:20:48 PM
Surr: 2-Fluorophenol	70.7	20.2-108		%REC	1	7/27/2012 2:20:48 PM
Surr: 4-Terphenyl-d14	84.2	18.9-115		%REC	1	7/27/2012 2:20:48 PM
Surr: Nitrobenzene-d5	85.1	20.8-123		%REC	1	7/27/2012 2:20:48 PM
Surr: Phenol-d5	79.9	19.8-115		%REC	1	7/27/2012 2:20:48 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
Toluene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
Ethylbenzene	3.1	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,2,4-Trimethylbenzene	12	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,3,5-Trimethylbenzene	1.7	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
Naphthalene	3.9	2.0		mg/Kg	20	7/23/2012 9:14:46 PM
1-Methylnaphthalene	7.2	4.0		mg/Kg	20	7/23/2012 9:14:46 PM
2-Methylnaphthalene	12	4.0		mg/Kg	20	7/23/2012 9:14:46 PM
Acetone	ND	15		mg/Kg	20	7/23/2012 9:14:46 PM
Bromobenzene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
Bromoform	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
Bromomethane	ND	3.0		mg/Kg	20	7/23/2012 9:14:46 PM
2-Butanone	ND	10		mg/Kg	20	7/23/2012 9:14:46 PM
Carbon disulfide	ND	10		mg/Kg	20	7/23/2012 9:14:46 PM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/23/2012 9:14:46 PM
Chlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
Chloroethane	ND	2.0		mg/Kg	20	7/23/2012 9:14:46 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SMWU 14-7 (6-8')
Project: SWMU NO.14
Collection Date: 7/18/2012 7:10:00 PM
Lab ID: 1207922-008
Matrix: SOIL
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
Chloromethane	ND	3.0		mg/Kg	20	7/23/2012 9:14:46 PM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/23/2012 9:14:46 PM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
Dibromomethane	ND	2.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/23/2012 9:14:46 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/23/2012 9:14:46 PM
2-Hexanone	ND	10		mg/Kg	20	7/23/2012 9:14:46 PM
Isopropylbenzene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
4-Isopropyltoluene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/23/2012 9:14:46 PM
Methylene chloride	ND	3.0		mg/Kg	20	7/23/2012 9:14:46 PM
n-Butylbenzene	1.6	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
n-Propylbenzene	2.0	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
sec-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
Styrene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,1,2-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/23/2012 9:14:46 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-008 **Matrix:** SOIL

Client Sample ID: SMWU 14-7 (6-8')
Collection Date: 7/18/2012 7:10:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	1.0		mg/Kg	20	7/23/2012 9:14:46 PM
Xylenes, Total	8.1	2.0		mg/Kg	20	7/23/2012 9:14:46 PM
Surr: 1,2-Dichloroethane-d4	95.4	70-130		%REC	20	7/23/2012 9:14:46 PM
Surr: 4-Bromofluorobenzene	77.4	70-130		%REC	20	7/23/2012 9:14:46 PM
Surr: Dibromofluoromethane	106	70-130		%REC	20	7/23/2012 9:14:46 PM
Surr: Toluene-d8	102	70-130		%REC	20	7/23/2012 9:14:46 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-009 **Matrix:** SOIL

Client Sample ID: SMWU 14-7 (23.5-24')
Collection Date: 7/18/2012 7:20:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/21/2012 6:56:50 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/21/2012 6:56:50 PM
Surr: DNOP	115	77.6-140		%REC	1	7/21/2012 6:56:50 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/27/2012 2:05:10 AM
Surr: BFB	107	84-116		%REC	1	7/27/2012 2:05:10 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/3/2012 4:31:45 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **ELS**
Antimony	ND	13		mg/Kg	5	8/10/2012 8:22:31 PM
Arsenic	ND	13		mg/Kg	5	8/10/2012 8:22:31 PM
Barium	350	5.0		mg/Kg	50	8/10/2012 8:24:57 PM
Beryllium	1.2	0.75		mg/Kg	5	8/10/2012 8:22:31 PM
Cadmium	ND	0.50		mg/Kg	5	8/10/2012 8:22:31 PM
Chromium	17	1.5		mg/Kg	5	8/10/2012 8:22:31 PM
Cobalt	7.6	1.5		mg/Kg	5	8/10/2012 8:22:31 PM
Iron	21000	500		mg/Kg	500	8/22/2012 7:45:41 AM
Lead	ND	1.3		mg/Kg	5	8/10/2012 8:22:31 PM
Manganese	740	5.0		mg/Kg	50	8/10/2012 8:24:57 PM
Nickel	16	2.5		mg/Kg	5	8/10/2012 8:22:31 PM
Selenium	ND	13		mg/Kg	5	8/10/2012 8:22:31 PM
Silver	ND	1.3		mg/Kg	5	8/10/2012 8:22:31 PM
Vanadium	16	13		mg/Kg	5	8/10/2012 8:22:31 PM
Zinc	25	13		mg/Kg	5	8/10/2012 8:22:31 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Acenaphthylene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Aniline	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Anthracene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Azobenzene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Benzoic acid	ND	0.50		mg/Kg	1	7/27/2012 3:49:13 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-009 **Matrix:** SOIL

Client Sample ID: SMWU 14-7 (23.5-24')
Collection Date: 7/18/2012 7:20:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/27/2012 3:49:13 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Carbazole	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/27/2012 3:49:13 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	7/27/2012 3:49:13 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/27/2012 3:49:13 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Chrysene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/27/2012 3:49:13 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	7/27/2012 3:49:13 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Dibenzofuran	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/27/2012 3:49:13 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 3:49:13 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/27/2012 3:49:13 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/27/2012 3:49:13 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/27/2012 3:49:13 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/27/2012 3:49:13 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/27/2012 3:49:13 PM
Fluoranthene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Fluorene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Hexachloroethane	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Isophorone	ND	0.50		mg/Kg	1	7/27/2012 3:49:13 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
2-Methylphenol	ND	0.50		mg/Kg	1	7/27/2012 3:49:13 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Naphthalene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-009 **Matrix:** SOIL

Client Sample ID: SMWU 14-7 (23.5-24')
Collection Date: 7/18/2012 7:20:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 3:49:13 PM
Nitrobenzene	ND	0.50		mg/Kg	1	7/27/2012 3:49:13 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	7/27/2012 3:49:13 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	7/27/2012 3:49:13 PM
Phenanthrene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Phenol	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Pyrene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Pyridine	ND	0.50		mg/Kg	1	7/27/2012 3:49:13 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/27/2012 3:49:13 PM
Surr: 2,4,6-Tribromophenol	71.0	20.1-121		%REC	1	7/27/2012 3:49:13 PM
Surr: 2-Fluorobiphenyl	60.0	19-133		%REC	1	7/27/2012 3:49:13 PM
Surr: 2-Fluorophenol	54.8	20.2-108		%REC	1	7/27/2012 3:49:13 PM
Surr: 4-Terphenyl-d14	68.7	18.9-115		%REC	1	7/27/2012 3:49:13 PM
Surr: Nitrobenzene-d5	55.0	20.8-123		%REC	1	7/27/2012 3:49:13 PM
Surr: Phenol-d5	58.5	19.8-115		%REC	1	7/27/2012 3:49:13 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Toluene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Ethylbenzene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Xylenes, Total	ND	2.01		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Methyl tert-butyl ether (MTBE)	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,2,4-Trimethylbenzene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,2-Dichloroethane (EDC)	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,2-Dibromoethane (EDB)	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Naphthalene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1-Methylnaphthalene	ND	4.02		µg/Kg-dry	1	7/20/2012 8:04:07 PM
2-Methylnaphthalene	ND	4.02		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Acetone	ND	10.0		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Bromobenzene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Bromodichloromethane	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Bromoform	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
2-Butanone	ND	2.01		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Carbon tetrachloride	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Chlorobenzene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Chloroethane	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Chloroform	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-009 **Matrix:** SOIL

Client Sample ID: SMWU 14-7 (23.5-24')
Collection Date: 7/18/2012 7:20:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
2-Chlorotoluene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Carbon disulfide	ND	2.01		µg/Kg-dry	1	7/20/2012 8:04:07 PM
4-Chlorotoluene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
cis-1,2-DCE	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
cis-1,3-Dichloropropene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,2-Dibromo-3-chloropropane	ND	2.01		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Dibromochloromethane	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Dibromomethane	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,2-Dichlorobenzene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,3-Dichlorobenzene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,4-Dichlorobenzene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Dichlorodifluoromethane	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,1-Dichloroethane	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,1-Dichloroethene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,2-Dichloropropane	ND	2.01		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,3-Dichloropropane	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
2,2-Dichloropropane	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,1-Dichloropropene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Hexachlorobutadiene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Isopropylbenzene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
4-Isopropyltoluene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Methylene chloride	ND	2.01		µg/Kg-dry	1	7/20/2012 8:04:07 PM
n-Butylbenzene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
2-Hexanone	ND	2.01		µg/Kg-dry	1	7/20/2012 8:04:07 PM
n-Propylbenzene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
sec-Butylbenzene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Styrene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
4-Methyl-2-pentanone	ND	2.01		µg/Kg-dry	1	7/20/2012 8:04:07 PM
tert-Butylbenzene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,1,1,2-Tetrachloroethane	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Tetrachloroethene (PCE)	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
trans-1,2-DCE	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
trans-1,3-Dichloropropene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,2,3-Trichlorobenzene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,2,4-Trichlorobenzene	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,1,1-Trichloroethane	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,1,2-Trichloroethane	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Trichloroethene (TCE)	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Trichlorofluoromethane	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
1,2,3-Trichloropropane	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207922-009 **Matrix:** SOIL

Client Sample ID: SMWU 14-7 (23.5-24')
Collection Date: 7/18/2012 7:20:00 PM
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	1.00		µg/Kg-dry	1	7/20/2012 8:04:07 PM
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	1	7/20/2012 8:04:07 PM
Surr: 4-Bromofluorobenzene	95.0	70-130		%REC	1	7/20/2012 8:04:07 PM
Surr: Dibromofluoromethane	90.0	70-130		%REC	1	7/20/2012 8:04:07 PM
Surr: Toluene-d8	100	70-130		%REC	1	7/20/2012 8:04:07 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB071812
Project: SWMU NO.14
Collection Date: 7/18/2012 7:45:00 PM
Lab ID: 1207922-010
Matrix: AQUEOUS
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/23/2012 7:25:44 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/23/2012 7:25:44 PM
Surr: DNOP	127	79.5-166		%REC	1	7/23/2012 7:25:44 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/25/2012 12:38:13 AM
Surr: BFB	94.7	69.8-119		%REC	1	7/25/2012 12:38:13 AM
EPA METHOD 200.7: METALS						Analyst: **JLF**
Barium	ND	0.0020		mg/L	1	8/17/2012 12:49:03 PM
Beryllium	ND	0.0020		mg/L	1	8/17/2012 12:49:03 PM
Cadmium	ND	0.0020		mg/L	1	8/17/2012 12:49:03 PM
Chromium	ND	0.0060		mg/L	1	8/20/2012 11:03:35 AM
Cobalt	ND	0.0060		mg/L	1	8/17/2012 12:49:03 PM
Iron	ND	0.020		mg/L	1	8/17/2012 12:49:03 PM
Manganese	ND	0.0020		mg/L	1	8/17/2012 12:49:03 PM
Nickel	ND	0.010		mg/L	1	8/20/2012 11:03:35 AM
Silver	ND	0.0050		mg/L	1	8/17/2012 12:49:03 PM
Vanadium	ND	0.050		mg/L	1	8/17/2012 12:49:03 PM
Zinc	ND	0.010		mg/L	1	8/20/2012 11:03:35 AM
EPA 200.8: METALS						Analyst: **SNV**
Antimony	ND	0.0010		mg/L	1	7/31/2012 6:44:16 PM
Arsenic	ND	0.0010		mg/L	1	7/31/2012 6:44:16 PM
Lead	ND	0.0010		mg/L	1	7/31/2012 6:44:16 PM
Selenium	ND	0.0010		mg/L	1	7/31/2012 6:44:16 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	7/24/2012 11:01:25 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Acenaphthylene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Aniline	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Anthracene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Azobenzene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Benz(a)anthracene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Benzo(a)pyrene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Benzoic acid	ND	20		µg/L	1	7/25/2012 1:15:31 PM
Benzyl alcohol	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/25/2012 1:15:31 PM

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- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB071812
Project: SWMU NO.14
Collection Date: 7/18/2012 7:45:00 PM
Lab ID: 1207922-010
Matrix: AQUEOUS
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/25/2012 1:15:31 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Butyl benzyl phthalate	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Carbazole	ND	10		µg/L	1	7/25/2012 1:15:31 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/25/2012 1:15:31 PM
4-Chloroaniline	ND	10		µg/L	1	7/25/2012 1:15:31 PM
2-Chloronaphthalene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
2-Chlorophenol	ND	10		µg/L	1	7/25/2012 1:15:31 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Chrysene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Di-n-butyl phthalate	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Di-n-octyl phthalate	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Dibenzofuran	ND	10		µg/L	1	7/25/2012 1:15:31 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Diethyl phthalate	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Dimethyl phthalate	ND	10		µg/L	1	7/25/2012 1:15:31 PM
2,4-Dichlorophenol	ND	20		µg/L	1	7/25/2012 1:15:31 PM
2,4-Dimethylphenol	ND	10		µg/L	1	7/25/2012 1:15:31 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/25/2012 1:15:31 PM
2,4-Dinitrophenol	ND	20		µg/L	1	7/25/2012 1:15:31 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Fluoranthene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Fluorene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Hexachlorobenzene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Hexachlorobutadiene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Hexachloroethane	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Isophorone	ND	10		µg/L	1	7/25/2012 1:15:31 PM
1-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
2-Methylphenol	ND	10		µg/L	1	7/25/2012 1:15:31 PM
3+4-Methylphenol	ND	10		µg/L	1	7/25/2012 1:15:31 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/25/2012 1:15:31 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/25/2012 1:15:31 PM

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- ND Not Detected at the Reporting Limit
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- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB071812
Project: SWMU NO.14
Collection Date: 7/18/2012 7:45:00 PM
Lab ID: 1207922-010
Matrix: AQUEOUS
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Naphthalene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
2-Nitroaniline	ND	10		µg/L	1	7/25/2012 1:15:31 PM
3-Nitroaniline	ND	10		µg/L	1	7/25/2012 1:15:31 PM
4-Nitroaniline	ND	20		µg/L	1	7/25/2012 1:15:31 PM
Nitrobenzene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
2-Nitrophenol	ND	10		µg/L	1	7/25/2012 1:15:31 PM
4-Nitrophenol	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Pentachlorophenol	ND	20		µg/L	1	7/25/2012 1:15:31 PM
Phenanthrene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Phenol	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Pyrene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Pyridine	ND	10		µg/L	1	7/25/2012 1:15:31 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/25/2012 1:15:31 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/25/2012 1:15:31 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/25/2012 1:15:31 PM
Surr: 2,4,6-Tribromophenol	52.7	44.2-126		%REC	1	7/25/2012 1:15:31 PM
Surr: 2-Fluorobiphenyl	51.7	37-114		%REC	1	7/25/2012 1:15:31 PM
Surr: 2-Fluorophenol	28.7	23.4-98		%REC	1	7/25/2012 1:15:31 PM
Surr: 4-Terphenyl-d14	68.2	41.3-116		%REC	1	7/25/2012 1:15:31 PM
Surr: Nitrobenzene-d5	51.5	39.5-118		%REC	1	7/25/2012 1:15:31 PM
Surr: Phenol-d5	29.2	20.9-95.9		%REC	1	7/25/2012 1:15:31 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
Toluene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
Ethylbenzene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
Naphthalene	ND	2.0		µg/L	1	7/25/2012 12:54:27 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/25/2012 12:54:27 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/25/2012 12:54:27 AM
Acetone	ND	10		µg/L	1	7/25/2012 12:54:27 AM
Bromobenzene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
Bromoform	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
Bromomethane	ND	3.0		µg/L	1	7/25/2012 12:54:27 AM
2-Butanone	ND	10		µg/L	1	7/25/2012 12:54:27 AM
Carbon disulfide	ND	10		µg/L	1	7/25/2012 12:54:27 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB071812
Project: SWMU NO.14
Collection Date: 7/18/2012 7:45:00 PM
Lab ID: 1207922-010
Matrix: AQUEOUS
Received Date: 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Carbon Tetrachloride	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
Chlorobenzene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
Chloroethane	ND	2.0		µg/L	1	7/25/2012 12:54:27 AM
Chloroform	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
Chloromethane	ND	3.0		µg/L	1	7/25/2012 12:54:27 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/25/2012 12:54:27 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
Dibromomethane	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/25/2012 12:54:27 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
2-Hexanone	ND	10		µg/L	1	7/25/2012 12:54:27 AM
Isopropylbenzene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/25/2012 12:54:27 AM
Methylene Chloride	ND	3.0		µg/L	1	7/25/2012 12:54:27 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
Styrene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/25/2012 12:54:27 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM

Qualifiers:

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- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB071812
Project: SWMU NO.14
Collection Date: 7/18/2012 7:45:00 PM
Lab ID: 1207922-010 **Matrix:** AQUEOUS **Received Date:** 7/20/2012 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/25/2012 12:54:27 AM
Vinyl chloride	ND	1.0		µg/L	1	7/25/2012 12:54:27 AM
Xylenes, Total	ND	1.5		µg/L	1	7/25/2012 12:54:27 AM
Surr: 1,2-Dichloroethane-d4	95.9	70-130		%REC	1	7/25/2012 12:54:27 AM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	1	7/25/2012 12:54:27 AM
Surr: Dibromofluoromethane	104	70-130		%REC	1	7/25/2012 12:54:27 AM
Surr: Toluene-d8	105	70-130		%REC	1	7/25/2012 12:54:27 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120724076
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1207922
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120724076-001	**Sampling Date**	7/18/2012	**Date/Time Received**	7/24/2012 1:00 PM
Client Sample ID	1207922-001D / SMW 14-9 (0-0.5)			**Sampling Time**	4:20 PM
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	
%moisture	4.4	Percent		7/31/2012	CRW	%moisture	

Sample Number	120724076-002	**Sampling Date**	7/18/2012	**Date/Time Received**	7/24/2012 1:00 PM
Client Sample ID	1207922-002D / SMW 14-9 (0-0.5) DUP			**Sampling Time**	4:20 PM
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	1.04	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	
%moisture	3.6	Percent		7/31/2012	CRW	%moisture	

Sample Number	120724076-003	**Sampling Date**	7/18/2012	**Date/Time Received**	7/24/2012 1:00 PM
Client Sample ID	1207922-003D / SMW 14-9 (1.5-2)			**Sampling Time**	4:30 PM
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	
%moisture	13.3	Percent		7/31/2012	CRW	%moisture	

Sample Number	120724076-004	**Sampling Date**	7/18/2012	**Date/Time Received**	7/24/2012 1:00 PM
Client Sample ID	1207922-004D / SMW 14-9 (4-6)			**Sampling Time**	4:40 PM
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	
%moisture	17.8	Percent		7/31/2012	CRW	%moisture	

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 120724076
Project Name: 1207922

Analytical Results Report

Sample Number 120724076-005 **Sampling Date** 7/18/2012 **Date/Time Received** 7/24/2012 1:00 PM
Client Sample ID 1207922-005D / SMW 14-9 (13-14) **Sampling Time** 5:00 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	
%moisture	16.9	Percent		7/31/2012	CRW	%moisture	

Sample Number 120724076-006 **Sampling Date** 7/18/2012 **Date/Time Received** 7/24/2012 1:00 PM
Client Sample ID 1207922-006D / SMW 14-7 (0-0.5) **Sampling Time** 6:30 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	
%moisture	10.3	Percent		7/31/2012	CRW	%moisture	

Sample Number 120724076-007 **Sampling Date** 7/18/2012 **Date/Time Received** 7/24/2012 1:00 PM
Client Sample ID 1207922-007D / SMW 14-7 (1.5-2) **Sampling Time** 6:50 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	
%moisture	12.4	Percent		7/31/2012	CRW	%moisture	

Sample Number 120724076-008 **Sampling Date** 7/18/2012 **Date/Time Received** 7/24/2012 1:00 PM
Client Sample ID 1207922-008D / SMW 14-7 (6-8) **Sampling Time** 7:10 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	
%moisture	16.1	Percent		7/31/2012	CRW	%moisture	

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 120724076
Project Name: 1207922

Analytical Results Report

Sample Number 120724076-009 **Sampling Date** 7/18/2012 **Date/Time Received** 7/24/2012 1:00 PM
Client Sample ID 1207922-009D / SMW 14-7 (23.5-24) **Sampling Time** 7:20 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	
%moisture	11.4	Percent		7/31/2012	CRW	%moisture	

Sample Number 120724076-010 **Sampling Date** 7/18/2012 **Date/Time Received** 7/24/2012 1:00 PM
Client Sample ID 1207922-010F / EB071812 **Sampling Time** 7:45 PM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	7/31/2012	CRW	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**

Client ID: **PBW** Batch ID: **R4938** RunNo: **4938**

Prep Date: Analysis Date: **8/17/2012** SeqNo: **139688** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Vanadium	ND	0.050								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**

Client ID: **LCSW** Batch ID: **R4938** RunNo: **4938**

Prep Date: Analysis Date: **8/17/2012** SeqNo: **139689** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0.0005000	98.2	85	115			
Beryllium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.3	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.6	85	115			
Iron	0.48	0.020	0.5000	0	96.8	85	115			
Manganese	0.48	0.0020	0.5000	0	95.4	85	115			
Silver	0.097	0.0050	0.1000	0	96.9	85	115			
Vanadium	0.50	0.050	0.5000	0	101	85	115			

Sample ID **1207807-002BMS** SampType: **MS** TestCode: **EPA Method 200.7: Metals**

Client ID: **BatchQC** Batch ID: **R4938** RunNo: **4938**

Prep Date: Analysis Date: **8/17/2012** SeqNo: **139709** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.60	0.0020	0.5000	0.08916	102	70	130			

Sample ID **1207807-002BMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**

Client ID: **BatchQC** Batch ID: **R4938** RunNo: **4938**

Prep Date: Analysis Date: **8/17/2012** SeqNo: **139710** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.59	0.0020	0.5000	0.08916	99.9	70	130	1.42	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**

Client ID: **PBW** Batch ID: **R4970** RunNo: **4970**

Prep Date: Analysis Date: **8/20/2012** SeqNo: **140607** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Metals					
Client ID:	PBW	Batch ID:	R4970	RunNo:	4970					
Prep Date:		Analysis Date:	8/20/2012	SeqNo:	140607	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	ND	0.0060								
Nickel	ND	0.010								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Metals					
Client ID:	LCSW	Batch ID:	R4970	RunNo:	4970					
Prep Date:		Analysis Date:	8/20/2012	SeqNo:	140608	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.48	0.0060	0.5000	0	96.0	85	115			
Nickel	0.46	0.010	0.5000	0	92.5	85	115			
Zinc	0.48	0.010	0.5000	0	95.6	85	115			

Sample ID	1207B81-004AMS	SampType:	MS	TestCode:	EPA Method 200.7: Metals					
Client ID:	BatchQC	Batch ID:	R4970	RunNo:	4970					
Prep Date:		Analysis Date:	8/20/2012	SeqNo:	140624	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.47	0.0060	0.5000	0	93.3	70	130			
Nickel	0.44	0.010	0.5000	0	88.9	70	130			
Zinc	0.47	0.010	0.5000	0.009760	92.7	70	130			

Sample ID	1207B81-004AMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Metals					
Client ID:	BatchQC	Batch ID:	R4970	RunNo:	4970					
Prep Date:		Analysis Date:	8/20/2012	SeqNo:	140625	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.47	0.0060	0.5000	0	93.5	70	130	0.186	20	
Nickel	0.44	0.010	0.5000	0	88.8	70	130	0.0540	20	
Zinc	0.47	0.010	0.5000	0.009760	92.2	70	130	0.517	20	

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	1207508-003AMS	SampType:	MS		TestCode:	EPA 200.8: Metals				
Client ID:	BatchQC	Batch ID:	R4578		RunNo:	4578				
Prep Date:		Analysis Date:	7/31/2012		SeqNo:	128501	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.033	0.0010	0.02500	0.008736	97.7	70	130			

Sample ID	1207608-004AMS	SampType:	MS		TestCode:	EPA 200.8: Metals				
Client ID:	BatchQC	Batch ID:	R4578		RunNo:	4578				
Prep Date:		Analysis Date:	7/31/2012		SeqNo:	128507	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	101	70	130			
Arsenic	0.025	0.0010	0.02500	0	99.9	70	130			
Selenium	0.025	0.0010	0.02500	0	102	70	130			

Sample ID	1207806-004AMS	SampType:	MS		TestCode:	EPA 200.8: Metals				
Client ID:	BatchQC	Batch ID:	R4578		RunNo:	4578				
Prep Date:		Analysis Date:	7/31/2012		SeqNo:	128522	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	100	70	130			
Arsenic	0.025	0.0010	0.02500	0	100	70	130			
Selenium	0.029	0.0010	0.02500	0.004090	98.9	70	130			

Sample ID	LCS	SampType:	LCS		TestCode:	EPA 200.8: Metals				
Client ID:	LCSW	Batch ID:	R4578		RunNo:	4578				
Prep Date:		Analysis Date:	7/31/2012		SeqNo:	128780	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	100	85	115			
Arsenic	0.026	0.0010	0.02500	0	104	85	115			
Lead	0.025	0.0010	0.02500	0	101	85	115			
Selenium	0.028	0.0010	0.02500	0	112	85	115			

Sample ID	LCS	SampType:	LCS		TestCode:	EPA 200.8: Metals				
Client ID:	LCSW	Batch ID:	R4578		RunNo:	4578				
Prep Date:		Analysis Date:	7/31/2012		SeqNo:	128781	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	101	85	115			
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Lead	0.025	0.0010	0.02500	0	100	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	**MB**	SampType: **MBLK**			TestCode: **EPA 200.8: Metals**					
Client ID:	**PBW**	Batch ID: **R4578**			RunNo: **4578**					
Prep Date:		Analysis Date: **7/31/2012**			SeqNo: **128782**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	**MB**	SampType: **MBLK**			TestCode: **EPA 200.8: Metals**					
Client ID:	**PBW**	Batch ID: **R4578**			RunNo: **4578**					
Prep Date:		Analysis Date: **7/31/2012**			SeqNo: **128784**		Units: **mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	MB-2980	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury				
Client ID:	PBW	Batch ID:	2980	RunNo:	4384				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012	SeqNo:	122215	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-2980	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury				
Client ID:	LCSW	Batch ID:	2980	RunNo:	4384				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012	SeqNo:	122216	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.7	80	120			

Sample ID	1207906-001BMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury				
Client ID:	BatchQC	Batch ID:	2980	RunNo:	4384				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012	SeqNo:	122218	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.1	75	125			

Sample ID	1207906-001BMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury				
Client ID:	BatchQC	Batch ID:	2980	RunNo:	4384				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012	SeqNo:	122219	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.4	75	125	0.305	20	

Qualifiers:

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-2936	SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	PBS	Batch ID:	2936		RunNo:	4208				
Prep Date:	7/20/2012	Analysis Date:	7/21/2012		SeqNo:	120444	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	12		10.00		117	77.6	140			

Sample ID	LCS-2936	SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	2936		RunNo:	4208				
Prep Date:	7/20/2012	Analysis Date:	7/21/2012		SeqNo:	120445	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	10	50.00	0	74.5	52.6	130			
Surr: DNOP	4.6		5.000		91.7	77.6	140			

Sample ID	MB-2946	SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	PBS	Batch ID:	2946		RunNo:	4221				
Prep Date:	7/21/2012	Analysis Date:	7/22/2012		SeqNo:	120621	Units:	%REC		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		110	77.6	140			

Sample ID	MB-2947	SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	PBS	Batch ID:	2947		RunNo:	4221				
Prep Date:	7/21/2012	Analysis Date:	7/22/2012		SeqNo:	120622	Units:	%REC		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	11		10.00		111	77.6	140			

Sample ID	LCS-2946	SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	2946		RunNo:	4221				
Prep Date:	7/21/2012	Analysis Date:	7/22/2012		SeqNo:	120623	Units:	%REC		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.5	77.6	140			

Sample ID	LCS-2947	SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	2947		RunNo:	4221				
Prep Date:	7/21/2012	Analysis Date:	7/22/2012		SeqNo:	120624	Units:	%REC		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		87.1	77.6	140			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	1207838-001AMS	SampType:	MS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	BatchQC	Batch ID:	2946		RunNo:	4221				
Prep Date:	7/21/2012	Analysis Date:	7/22/2012		SeqNo:	120626	Units:	%REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		4.873		89.6	77.6	140			

Sample ID	1207838-001AMSD	SampType:	MSD		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	BatchQC	Batch ID:	2946		RunNo:	4221				
Prep Date:	7/21/2012	Analysis Date:	7/22/2012		SeqNo:	120627	Units:	%REC		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		4.955		88.1	77.6	140	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-2965	SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range				
Client ID:	PBW	Batch ID:	2965		RunNo:	4229				
Prep Date:	7/23/2012	Analysis Date:	7/23/2012		SeqNo:	121391	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		123	79.5	166			

Sample ID	LCS-2965	SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range				
Client ID:	LCSW	Batch ID:	2965		RunNo:	4229				
Prep Date:	7/23/2012	Analysis Date:	7/23/2012		SeqNo:	121392	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.0	74	157			
Surr: DNOP	0.51		0.5000		102	79.5	166			

Sample ID	LCSD-2965	SampType:	LCSD		TestCode:	EPA Method 8015B: Diesel Range				
Client ID:	LCSS02	Batch ID:	2965		RunNo:	4229				
Prep Date:	7/23/2012	Analysis Date:	7/23/2012		SeqNo:	121393	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.9	74	157	0.931	23	
Surr: DNOP	0.53		0.5000		106	79.5	166	0	0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB-3010**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **3010**	RunNo: **4444**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124694** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		99.6	84	116			

Sample ID **LCS-3010**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **3010**	RunNo: **4444**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124695** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	85	115			
Surr: BFB	1100		1000		108	84	116			

Sample ID **1207A15-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **3010**	RunNo: **4444**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124697** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.7	23.61	3.490	84.9	70	130			
Surr: BFB	1100		944.3		112	84	116			

Sample ID **1207A15-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **3010**	RunNo: **4444**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124698** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.7	23.58	3.490	83.3	70	130	1.63	22.1	
Surr: BFB	1100		943.4		113	84	116	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

t: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122827** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		88.5	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122828** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	101	75.9	119			
Surr: BFB	21		20.00		103	69.8	119			

Sample ID **1207819-004AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122835** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.7	0.25	2.500	2.307	94.7	75.4	121			
Surr: BFB	100		100.0		103	69.8	119			

Sample ID **1207819-004AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122836** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.1	0.25	2.500	2.307	71.5	75.4	121	13.2	10.5	SR
Surr: BFB	96		100.0		96.5	69.8	119	0	0	

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **b5**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBS**	Batch ID: **R4233**	RunNo: **4233**	
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121267**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **b5**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121267** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.050								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
Trichloroethane	ND	0.050								
Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.1	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		107	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		89.1	70	130			
Surr: Toluene-d8	0.53		0.5000		105	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121268** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	107	70.7	123			
Toluene	1.1	0.050	1.000	0	107	80	120			
Chlorobenzene	1.0	0.050	1.000	0	102	70	130			
1,1-Dichloroethene	0.99	0.050	1.000	0	99.0	63.1	148			
Trichloroethene (TCE)	0.89	0.050	1.000	0	88.8	63.2	114			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.1	70	130			
Surr: 4-Bromofluorobenzene	0.60		0.5000		121	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **100ng lcs2** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSS** Batch ID: **R4233** RunNo: **4233**

Prep Date: Analysis Date: **7/21/2012** SeqNo: **121268** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.45		0.5000		89.3	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID **1207900-002b ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4233** RunNo: **4233**

Prep Date: Analysis Date: **7/21/2012** SeqNo: **121269** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.70	0.050	0.6439	0.006767	108	81.3	119			
Toluene	0.65	0.050	0.6439	0	100	75	121			
Chlorobenzene	0.64	0.050	0.6439	0	99.6	78.5	120			
1,1-Dichloroethene	0.68	0.050	0.6439	0	106	75.3	115			
Trichloroethene (TCE)	0.61	0.050	0.6439	0	94.7	67.8	119			
Surr: 1,2-Dichloroethane-d4	0.31		0.3220		97.6	70	130			
Surr: 4-Bromofluorobenzene	0.32		0.3220		97.9	70	130			
Surr: Dibromofluoromethane	0.32		0.3220		98.8	70	130			
Surr: Toluene-d8	0.32		0.3220		101	70	130			

Sample ID **1207900-002b msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4233** RunNo: **4233**

Prep Date: Analysis Date: **7/21/2012** SeqNo: **121270** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.67	0.050	0.6439	0.006767	103	81.3	119	4.25	15.7	
Toluene	0.63	0.050	0.6439	0	98.3	75	121	2.14	16.2	
Chlorobenzene	0.65	0.050	0.6439	0	101	78.5	120	1.27	14.9	
1,1-Dichloroethene	0.60	0.050	0.6439	0	93.7	75.3	115	12.0	31.8	
Trichloroethene (TCE)	0.55	0.050	0.6439	0	85.7	67.8	119	10.0	16.5	
Surr: 1,2-Dichloroethane-d4	0.31		0.3220		95.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.31		0.3220		97.7	70	130	0	0	
Surr: Dibromofluoromethane	0.30		0.3220		92.3	70	130	0	0	
Surr: Toluene-d8	0.32		0.3220		100	70	130	0	0	

Sample ID **5ml-rb** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBS** Batch ID: **R4379** RunNo: **4379**

Prep Date: Analysis Date: **7/23/2012** SeqNo: **122014** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

ıt: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBS**	Batch ID: **R4379**	RunNo: **4379**	
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122014**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
ıform	ND	0.050								
ıomethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								

ıifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207922

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122014** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.050								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.6	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.53		0.5000		105	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122015** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	105	70.7	123			
Toluene	0.96	0.050	1.000	0	95.5	80	120			
Chlorobenzene	0.98	0.050	1.000	0	97.9	70	130			
1,1-Dichloroethene	0.93	0.050	1.000	0	92.5	63.1	148			
Trichloroethene (TCE)	0.88	0.050	1.000	0	88.4	63.2	114			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.5	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		103	70	130			
Surr: Toluene-d8	0.49		0.5000		97.5	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **1207940-007b ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122016** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	44	2.5	42.92	2.856	95.9	81.3	119			
Toluene	56	2.5	42.92	14.08	97.1	75	121			
Chlorobenzene	42	2.5	42.92	0	97.1	78.5	120			
1,1-Dichloroethene	39	2.5	42.92	0	91.6	75.3	115			
Trichloroethene (TCE)	37	2.5	42.92	0	85.1	67.8	119			
Surr: 1,2-Dichloroethane-d4	20		21.46		92.0	70	130			
Surr: 4-Bromofluorobenzene	20		21.46		93.8	70	130			
Surr: Dibromofluoromethane	22		21.46		101	70	130			
Surr: Toluene-d8	22		21.46		102	70	130			

Sample ID **1207940-007b msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122017** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	43	2.5	42.92	2.856	93.9	81.3	119	1.96	15.7	
Toluene	54	2.5	42.92	14.08	92.6	75	121	3.49	16.2	
`benzene	42	2.5	42.92	0	97.0	78.5	120	0.0484	14.9	
`hloroethene	37	2.5	42.92	0	85.4	75.3	115	7.02	31.8	
Trichloroethene (TCE)	36	2.5	42.92	0	84.2	67.8	119	1.08	16.5	
Surr: 1,2-Dichloroethane-d4	20		21.46		94.1	70	130	0	0	
Surr: 4-Bromofluorobenzene	20		21.46		92.2	70	130	0	0	
Surr: Dibromofluoromethane	23		21.46		106	70	130	0	0	
Surr: Toluene-d8	21		21.46		99.9	70	130	0	0	

Sample ID **mb-3010**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **3010**	RunNo: **4468**
Prep Date: **7/24/2012**	Analysis Date: **7/25/2012**	SeqNo: **125366** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.0	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

Sample ID **lcs-3010**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **3010**	RunNo: **4468**
Prep Date: **7/24/2012**	Analysis Date: **7/25/2012**	SeqNo: **125367** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.2	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		108	70	130			

`ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	lcs-3010	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSS	Batch ID:	3010	RunNo:	4468					
Prep Date:	7/24/2012	Analysis Date:	7/25/2012	SeqNo:	125367	Units:	%REC			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.50		0.5000		100	70	130			

Sample ID	mb-3010	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBS	Batch ID:	3010	RunNo:	4498					
Prep Date:	7/24/2012	Analysis Date:	7/27/2012	SeqNo:	126123	Units:	%REC			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		90.7	70	130			
Surr: 4-Bromofluorobenzene	0.59		0.5000		118	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.50		0.5000		99.3	70	130			

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

ıt: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **mb-2930**	SampType: **MBLK**		TestCode: **Method 8260B/5035LOW: VOLATILES**		
Client ID: **PBS**	Batch ID: **2930**		RunNo: **4215**		
Prep Date: **7/20/2012**	Analysis Date: **7/20/2012**		SeqNo: **120455**	Units: **µg/Kg-dry**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.00								
Toluene	ND	1.00								
Ethylbenzene	ND	1.00								
Xylenes, Total	ND	2.00								
Methyl tert-butyl ether (MTBE)	ND	1.00								
1,2,4-Trimethylbenzene	ND	1.00								
1,3,5-Trimethylbenzene	ND	1.00								
1,2-Dichloroethane (EDC)	ND	1.00								
1,2-Dibromoethane (EDB)	ND	1.00								
Naphthalene	ND	1.00								
1-Methylnaphthalene	ND	4.00								
2-Methylnaphthalene	ND	4.00								
Acetone	ND	10.0								
Bromobenzene	ND	1.00								
Bromodichloromethane	ND	1.00								
Bromoform	ND	1.00								
2-Butanone	ND	2.00								
ı tetrachloride	ND	1.00								
›obenzene	ND	1.00								
Chloroethane	ND	1.00								
Chloroform	ND	1.00								
Chloromethane	ND	1.00								
2-Chlorotoluene	ND	1.00								
Carbon disulfide	ND	2.00								
4-Chlorotoluene	ND	1.00								
cis-1,2-DCE	ND	1.00								
cis-1,3-Dichloropropene	ND	1.00								
1,2-Dibromo-3-chloropropane	ND	2.00								
Dibromochloromethane	ND	1.00								
Dibromomethane	ND	1.00								
1,2-Dichlorobenzene	ND	1.00								
1,3-Dichlorobenzene	ND	1.00								
1,4-Dichlorobenzene	ND	1.00								
Dichlorodifluoromethane	ND	1.00								
1,1-Dichloroethane	ND	1.00								
1,1-Dichloroethene	ND	1.00								
1,2-Dichloropropane	ND	2.00								
1,3-Dichloropropane	ND	1.00								
2,2-Dichloropropane	ND	1.00								
1,1-Dichloropropene	ND	1.00								
Hexachlorobutadiene	ND	1.00								

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-2930**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **2930**	RunNo: **4215**
Prep Date: **7/20/2012**	Analysis Date: **7/20/2012**	SeqNo: **120455** Units: **µg/Kg-dry**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Isopropylbenzene	ND	1.00								
4-Isopropyltoluene	ND	1.00								
Methylene chloride	ND	2.00								
n-Butylbenzene	ND	1.00								
2-Hexanone	ND	2.00								
n-Propylbenzene	ND	1.00								
sec-Butylbenzene	ND	1.00								
Styrene	ND	1.00								
4-Methyl-2-pentanone	ND	2.00								
tert-Butylbenzene	ND	1.00								
1,1,1,2-Tetrachloroethane	ND	1.00								
1,1,2,2-Tetrachloroethane	ND	1.00								
Tetrachloroethene (PCE)	ND	1.00								
trans-1,2-DCE	ND	1.00								
trans-1,3-Dichloropropene	ND	1.00								
1,2,3-Trichlorobenzene	ND	1.00								
1,2,4-Trichlorobenzene	ND	1.00								
1,1,1-Trichloroethane	ND	1.00								
1,1,2-Trichloroethane	ND	1.00								
Trichloroethene (TCE)	ND	1.00								
Trichlorofluoromethane	ND	1.00								
1,2,3-Trichloropropane	ND	1.00								
Vinyl chloride	ND	1.00								
Surr: 1,2-Dichloroethane-d4	52.9		50.00		106	70	130			
Surr: 4-Bromofluorobenzene	48.7		50.00		97.4	70	130			
Surr: Dibromofluoromethane	46.6		50.00		93.2	70	130			
Surr: Toluene-d8	50.9		50.00		102	70	130			

Sample ID **lcs-2930**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **2930**	RunNo: **4215**
Prep Date: **7/20/2012**	Analysis Date: **7/20/2012**	SeqNo: **120456** Units: **µg/Kg-dry**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	11.0	1.00	10.00	0	110	60	140			
Toluene	10.6	1.00	10.00	0	106	60	140			
Chlorobenzene	10.9	1.00	10.00	0	109	60	140			
1,1-Dichloroethene	11.9	1.00	10.00	0	119	60	140			
Trichloroethene (TCE)	11.1	1.00	10.00	0	111	60	140			
Surr: 1,2-Dichloroethane-d4	51.8		50.00		104	70	130			
Surr: 4-Bromofluorobenzene	47.6		50.00		95.1	70	130			
Surr: Dibromofluoromethane	47.2		50.00		94.3	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	lcs-2930	SampType:	LCS		TestCode:	Method 8260B/5035LOW: VOLATILES				
Client ID:	LCSS	Batch ID:	2930		RunNo:	4215				
Prep Date:	7/20/2012	Analysis Date:	7/20/2012		SeqNo:	120456	Units:	µg/Kg-dry		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	49.8		50.00		99.7	70	130			

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R4233**	RunNo: **4233**	
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120975**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

ıt: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120975** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
Trichloroethane	ND	1.0								
Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.1	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		117	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.0	70	130			
Surr: Toluene-d8	10		10.00		105	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120980** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	84.1	126			
Toluene	22	1.0	20.00	0	109	80	120			
Chlorobenzene	21	1.0	20.00	0	107	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.6	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.5	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			

'ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120980** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.9		10.00		88.5	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **1207711-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120981** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	66.8	128			
Toluene	23	1.0	20.00	0	116	70	130			
Chlorobenzene	21	1.0	20.00	0	104	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	97.9	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	92.2	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.0	70	130			
Surr: Toluene-d8	11		10.00		108	70	130			

Sample ID **1207711-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120982** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	66.8	128	0.0297	16.7	
Toluene	22	1.0	20.00	0	110	70	130	4.99	18.7	
Chlorobenzene	21	1.0	20.00	0	104	70	130	0.103	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	91.2	70	130	7.04	16.7	
Trichloroethene (TCE)	19	1.0	20.00	0	94.3	70	130	2.25	17.5	
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	12		10.00		119	70	130	0	0	
Surr: Dibromofluoromethane	9.3		10.00		92.6	70	130	0	0	
Surr: Toluene-d8	10		10.00		104	70	130	0	0	

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122005** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207922

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122005** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
form	ND	1.0								
omethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R4379** RunNo: **4379**

Prep Date: Analysis Date: **7/23/2012** SeqNo: **122005** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	11		10.00		105	70	130			

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R4379** RunNo: **4379**

Prep Date: Analysis Date: **7/23/2012** SeqNo: **122008** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	84.1	126			
Toluene	19	1.0	20.00	0	95.5	80	120			
Chlorobenzene	20	1.0	20.00	0	97.9	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.5	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	88.4	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	9.8		10.00		97.5	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4402**	RunNo: **4402**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122636** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
ɳ disulfide	ND	10								
ɔn Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

ʻifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4402**	RunNo: **4402**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122636** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4402**	RunNo: **4402**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122639** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.2	84.1	126			
Toluene	20	1.0	20.00	0	102	80	120			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	90.6	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	84.4	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207922

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R4402	RunNo:	4402					
Prep Date:		Analysis Date:	7/24/2012	SeqNo:	122639	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID	1207922-010a ms	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	EB071812	Batch ID:	R4402	RunNo:	4402					
Prep Date:		Analysis Date:	7/25/2012	SeqNo:	122640	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	66.8	128			
Toluene	21	1.0	20.00	0.7840	103	70	130			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	95.6	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	86.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID	1207922-010a msd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	EB071812	Batch ID:	R4402	RunNo:	4402					
Prep Date:		Analysis Date:	7/25/2012	SeqNo:	122641	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	66.8	128	0.357	16.7	
Toluene	20	1.0	20.00	0.7840	97.4	70	130	4.94	18.7	
Chlorobenzene	19	1.0	20.00	0	96.4	70	130	5.90	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	90.7	70	130	5.30	16.7	
Trichloroethene (TCE)	17	1.0	20.00	0	86.6	70	130	0.772	17.5	
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130	0	0	
Surr: Dibromofluoromethane	10		10.00		103	70	130	0	0	
Surr: Toluene-d8	10		10.00		102	70	130	0	0	

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R4468	RunNo:	4468					
Prep Date:		Analysis Date:	7/25/2012	SeqNo:	125370	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.9	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.5	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207922

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R4468** RunNo: **4468**

Prep Date: Analysis Date: **7/25/2012** SeqNo: **125371** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	10		10.00		99.7	70	130			
Surr: Toluene-d8	10		10.00		105	70	130			

Sample ID **100ng lcs2** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R4468** RunNo: **4468**

Prep Date: Analysis Date: **7/25/2012** SeqNo: **125372** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	10		10.00		99.6	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID **1207949-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4468** RunNo: **4468**

Prep Date: Analysis Date: **7/25/2012** SeqNo: **125377** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	11		10.00		107	70	130			

Sample ID **1207a22-002ams** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4468** RunNo: **4468**

Prep Date: Analysis Date: **7/26/2012** SeqNo: **125378** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	460		500.0		92.4	70	130			
Surr: 4-Bromofluorobenzene	490		500.0		98.8	70	130			
Surr: Dibromofluoromethane	510		500.0		102	70	130			
Surr: Toluene-d8	500		500.0		101	70	130			

Sample ID **1207a22-002amsd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4468** RunNo: **4468**

Prep Date: Analysis Date: **7/26/2012** SeqNo: **125380** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	470		500.0		93.1	70	130	0	0	
Surr: 4-Bromofluorobenzene	480		500.0		96.2	70	130	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	1207a22-002amsd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R4468	RunNo:	4468					
Prep Date:		Analysis Date:	7/26/2012	SeqNo:	125380	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	520		500.0		104	70	130	0	0	
Surr: Toluene-d8	520		500.0		105	70	130	0	0	

Sample ID	1207949-001a msd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R4468	RunNo:	4468					
Prep Date:		Analysis Date:	7/25/2012	SeqNo:	125381	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.5		10.00		95.0	70	130	0	0	
Surr: Dibromofluoromethane	11		10.00		107	70	130	0	0	
Surr: Toluene-d8	10		10.00		102	70	130	0	0	

Sample ID	b15	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R4468	RunNo:	4468					
Prep Date:		Analysis Date:	7/26/2012	SeqNo:	125426	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R4498	RunNo:	4498					
Prep Date:		Analysis Date:	7/27/2012	SeqNo:	126086	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.8	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		117	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	11		10.00		107	70	130			

Sample ID	100ng lcsb	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	R4498	RunNo:	4498					
Prep Date:		Analysis Date:	7/27/2012	SeqNo:	126090	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207a57-001ams** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4498** RunNo: **4498**

Prep Date: Analysis Date: **7/27/2012** SeqNo: **126091** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	470		500.0		93.5	70	130			
Surr: 4-Bromofluorobenzene	490		500.0		98.0	70	130			
Surr: Dibromofluoromethane	530		500.0		106	70	130			
Surr: Toluene-d8	520		500.0		104	70	130			

Sample ID **1207a57-001amsd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4498** RunNo: **4498**

Prep Date: Analysis Date: **7/27/2012** SeqNo: **126092** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	460		500.0		91.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	500		500.0		99.5	70	130	0	0	
Surr: Dibromofluoromethane	530		500.0		106	70	130	0	0	
Surr: Toluene-d8	520		500.0		104	70	130	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	mb-2996	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles		
Client ID:	PBS	Batch ID:	2996	RunNo:	4454		
Prep Date:	7/24/2012	Analysis Date:	7/26/2012	SeqNo:	124345	Units:	mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
ıenzyl phthalate	ND	0.20								
ızole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

ıifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-2996**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **2996**	RunNo: **4454**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124345** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.4		3.330		102	20.1	121			
Surr: 2-Fluorobiphenyl	1.3		1.670		79.2	19	133			
Surr: 2-Fluorophenol	2.2		3.330		67.3	20.2	108			
Surr: 4-Terphenyl-d14	1.5		1.670		87.9	18.9	115			
Surr: Nitrobenzene-d5	1.3		1.670		77.2	20.8	123			
Surr: Phenol-d5	2.7		3.330		82.4	19.8	115			

Sample ID **lcs-2996**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **2996**	RunNo: **4454**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124346** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	lcs-2996	SampType:	LCS	TestCode:	EPA Method 8270C: Semivolatiles
Client ID:	LCSS	Batch ID:	2996	RunNo:	4454
Prep Date:	7/24/2012	Analysis Date:	7/26/2012	SeqNo:	124346
Units:	mg/Kg				

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	69.0	49.7	98.1			
4-Chloro-3-methylphenol	2.3	0.50	3.330	0	70.3	43.8	89.1			
2-Chlorophenol	2.3	0.20	3.330	0	67.9	41.1	96.9			
1,4-Dichlorobenzene	1.0	0.20	1.670	0	61.9	41	97.4			
2,4-Dinitrotoluene	1.4	0.50	1.670	0	80.8	44.4	104			
N-Nitrosodi-n-propylamine	1.2	0.20	1.670	0	72.1	39.1	86.9			
4-Nitrophenol	2.8	0.25	3.330	0	82.9	44.2	107			
Pentachlorophenol	2.3	0.40	3.330	0	68.1	36.2	80			
Phenol	2.5	0.20	3.330	0	73.9	42.7	92.7			
Pyrene	1.0	0.20	1.670	0	62.2	34.7	98.8			
1,2,4-Trichlorobenzene	1.2	0.20	1.670	0	72.4	37.8	98.3			
Surr: 2,4,6-Tribromophenol	2.8		3.330		82.7	20.1	121			
Surr: 2-Fluorobiphenyl	1.3		1.670		75.6	19	133			
Surr: 2-Fluorophenol	2.2		3.330		66.8	20.2	108			
Surr: 4-Terphenyl-d14	1.3		1.670		78.1	18.9	115			
Surr: Nitrobenzene-d5	1.3		1.670		77.8	20.8	123			
Surr: Phenol-d5	2.5		3.330		74.7	19.8	115			

Sample ID	1207666-001Ams	SampType:	MS	TestCode:	EPA Method 8270C: Semivolatiles
Client ID:	BatchQC	Batch ID:	2996	RunNo:	4454
Prep Date:	7/24/2012	Analysis Date:	7/26/2012	SeqNo:	124359
Units:	mg/Kg				

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	6.3	1.0	8.322	0	75.9	38.6	100			
4-Chloro-3-methylphenol	14	2.5	16.59	0	86.5	35.8	108			
2-Chlorophenol	13	1.0	16.59	0	79.4	48.2	96.1			
1,4-Dichlorobenzene	6.0	1.0	8.322	0	72.5	42.5	97.6			
2,4-Dinitrotoluene	7.0	2.5	8.322	0	84.0	51.2	108			
N-Nitrosodi-n-propylamine	7.0	1.0	8.322	0	84.7	31.6	114			
4-Nitrophenol	16	1.2	16.59	0.3837	94.3	22.7	144			
Pentachlorophenol	9.8	2.0	16.59	0	59.3	24	109			
Phenol	17	1.0	16.59	6.194	66.9	33.1	108			
Pyrene	5.2	1.0	8.322	0	62.5	42.7	98.9			
1,2,4-Trichlorobenzene	6.1	1.0	8.322	0	73.0	27.1	118			
Surr: 2,4,6-Tribromophenol	15		16.59		92.7	20.1	121			
Surr: 2-Fluorobiphenyl	6.6		8.322		79.8	19	133			
Surr: 2-Fluorophenol	13		16.59		75.7	20.2	108			
Surr: 4-Terphenyl-d14	6.3		8.322		75.6	18.9	115			
Surr: Nitrobenzene-d5	6.7		8.322		80.5	20.8	123			
Surr: Phenol-d5	15		16.59		88.8	19.8	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207922

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID 1207666-001Amsd	SampType: MSD	TestCode: EPA Method 8270C: Semivolatiles
Client ID: BatchQC	Batch ID: 2996	RunNo: 4454
Prep Date: 7/24/2012	Analysis Date: 7/26/2012	SeqNo: 124360 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	6.2	1.0	8.406	0	73.4	38.6	100	2.26	20	
4-Chloro-3-methylphenol	14	2.5	16.76	0	81.8	35.8	108	4.66	20	
2-Chlorophenol	13	1.0	16.76	0	79.6	48.2	96.1	1.28	20	
1,4-Dichlorobenzene	6.2	1.0	8.406	0	73.6	42.5	97.6	2.48	20	
2,4-Dinitrotoluene	6.8	2.5	8.406	0	81.0	51.2	108	2.63	20	
N-Nitrosodi-n-propylamine	7.4	1.0	8.406	0	88.4	31.6	114	5.25	20	
4-Nitrophenol	15	1.3	16.76	0.3837	86.4	22.7	144	7.52	20	
Pentachlorophenol	10	2.0	16.76	0	61.0	24	109	3.78	20	
Phenol	20	1.0	16.76	6.194	81.0	33.1	108	13.4	20	
Pyrene	4.8	1.0	8.406	0	57.5	42.7	98.9	7.41	20	
1,2,4-Trichlorobenzene	6.3	1.0	8.406	0	74.7	27.1	118	3.30	20	
Surr: 2,4,6-Tribromophenol	15		16.76		88.4	20.1	121	0	0	
Surr: 2-Fluorobiphenyl	6.3		8.406		75.1	19	133	0	0	
Surr: 2-Fluorophenol	14		16.76		81.8	20.2	108	0	0	
Surr: 4-Terphenyl-d14	6.1		8.406		72.3	18.9	115	0	0	
Surr: Nitrobenzene-d5	6.7		8.406		79.6	20.8	123	0	0	
Surr: Phenol-d5	15		16.76		88.2	19.8	115	0	0	

Sample ID mb-3024	SampType: MBLK	TestCode: EPA Method 8270C: Semivolatiles
Client ID: PBS	Batch ID: 3024	RunNo: 4492
Prep Date: 7/25/2012	Analysis Date: 7/27/2012	SeqNo: 125905 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-3024**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **3024**	RunNo: **4492**
Prep Date: **7/25/2012**	Analysis Date: **7/27/2012**	SeqNo: **125905** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
hlorophenol	ND	0.40								
methylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-3024**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **3024**	RunNo: **4492**
Prep Date: **7/25/2012**	Analysis Date: **7/27/2012**	SeqNo: **125905** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	2.9		3.330		87.7	20.1	121			
Surr: 2-Fluorobiphenyl	1.3		1.670		77.6	19	133			
Surr: 2-Fluorophenol	2.0		3.330		60.2	20.2	108			
Surr: 4-Terphenyl-d14	1.3		1.670		78.0	18.9	115			
Surr: Nitrobenzene-d5	1.1		1.670		67.4	20.8	123			
Surr: Phenol-d5	2.4		3.330		70.9	19.8	115			

Sample ID **lcs-3024**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **3024**	RunNo: **4492**
Prep Date: **7/25/2012**	Analysis Date: **7/27/2012**	SeqNo: **125907** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	70.7	49.7	98.1			
4-Chloro-3-methylphenol	2.3	0.50	3.330	0	70.3	43.8	89.1			
2-Chlorophenol	2.1	0.20	3.330	0	61.7	41.1	96.9			
1,4-Dichlorobenzene	1.1	0.20	1.670	0	63.5	41	97.4			
2,4-Dinitrotoluene	1.3	0.50	1.670	0	78.9	44.4	104			
N-Nitrosodi-n-propylamine	1.2	0.20	1.670	0	72.4	39.1	86.9			
4-Nitrophenol	2.9	0.25	3.330	0	85.9	44.2	107			
Pentachlorophenol	2.5	0.40	3.330	0	74.5	36.2	80			
Phenol	2.4	0.20	3.330	0	71.3	42.7	92.7			
Pyrene	1.1	0.20	1.670	0	67.5	34.7	98.8			
1,2,4-Trichlorobenzene	1.2	0.20	1.670	0	72.9	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.3		3.330		98.0	20.1	121			
Surr: 2-Fluorobiphenyl	1.2		1.670		74.2	19	133			
Surr: 2-Fluorophenol	1.9		3.330		57.9	20.2	108			
Surr: 4-Terphenyl-d14	1.4		1.670		84.5	18.9	115			
Surr: Nitrobenzene-d5	1.2		1.670		70.6	20.8	123			
Surr: Phenol-d5	2.3		3.330		68.9	19.8	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

t: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **1207922-008Cms** SampType: **MS** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **SMWU 14-7 (6-8')** Batch ID: **3024** RunNo: **4492**
Prep Date: **7/25/2012** Analysis Date: **7/27/2012** SeqNo: **125927** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.7	0.40	1.674	0	101	38.6	100			S
4-Chloro-3-methylphenol	2.8	1.0	3.339	0	84.9	35.8	108			
2-Chlorophenol	2.7	0.40	3.339	0	81.4	48.2	96.1			
1,4-Dichlorobenzene	1.2	0.40	1.674	0	73.3	42.5	97.6			
2,4-Dinitrotoluene	1.2	1.0	1.674	0	68.9	51.2	108			
N-Nitrosodi-n-propylamine	ND	0.40	1.674	0	0	31.6	114			S
4-Nitrophenol	2.1	0.50	3.339	0	63.0	22.7	144			
Pentachlorophenol	2.2	0.80	3.339	0	64.8	24	109			
Phenol	3.0	0.40	3.339	0	88.9	33.1	108			
Pyrene	1.6	0.40	1.674	0.2483	83.5	42.7	98.9			
1,2,4-Trichlorobenzene	1.2	0.40	1.674	0	69.7	27.1	118			
Surr: 2,4,6-Tribromophenol	2.2		3.339		67.3	20.1	121			
Surr: 2-Fluorobiphenyl	1.3		1.674		76.2	19	133			
Surr: 2-Fluorophenol	2.4		3.339		71.5	20.2	108			
Surr: 4-Terphenyl-d14	1.5		1.674		90.0	18.9	115			
Surr: Nitrobenzene-d5	0		1.674		0	20.8	123			S
Surr: Phenol-d5	2.8		3.339		83.5	19.8	115			

ple ID **1207922-008Cmsd** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **SMWU 14-7 (6-8')** Batch ID: **3024** RunNo: **4492**
Prep Date: **7/25/2012** Analysis Date: **7/27/2012** SeqNo: **125928** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.4	0.40	1.671	0	86.7	38.6	100	15.9	20	
4-Chloro-3-methylphenol	2.8	1.0	3.332	0	84.1	35.8	108	1.20	20	
2-Chlorophenol	2.6	0.40	3.332	0	76.5	48.2	96.1	6.31	20	
1,4-Dichlorobenzene	1.2	0.40	1.671	0	70.6	42.5	97.6	3.92	20	
2,4-Dinitrotoluene	1.3	1.0	1.671	0	75.0	51.2	108	8.24	20	
N-Nitrosodi-n-propylamine	ND	0.40	1.671	0	0	31.6	114	0	20	S
4-Nitrophenol	2.0	0.50	3.332	0	61.2	22.7	144	3.20	20	
Pentachlorophenol	2.4	0.80	3.332	0	72.1	24	109	10.3	20	
Phenol	2.7	0.40	3.332	0	80.9	33.1	108	9.61	20	
Pyrene	1.5	0.40	1.671	0.2483	75.5	42.7	98.9	8.58	20	
1,2,4-Trichlorobenzene	1.2	0.40	1.671	0	74.3	27.1	118	6.12	20	
Surr: 2,4,6-Tribromophenol	2.3		3.332		69.8	20.1	121	0	0	
Surr: 2-Fluorobiphenyl	1.2		1.671		70.5	19	133	0	0	
Surr: 2-Fluorophenol	2.4		3.332		71.0	20.2	108	0	0	
Surr: 4-Terphenyl-d14	1.4		1.671		84.2	18.9	115	0	0	
Surr: Nitrobenzene-d5	1.2		1.671		74.7	20.8	123	0	0	
Surr: Phenol-d5	2.7		3.332		80.4	19.8	115	0	0	

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207922

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-3046** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **PBS** Batch ID: **3046** RunNo: **4555**

Prep Date: **7/26/2012** Analysis Date: **7/31/2012** SeqNo: **127860** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	1.6		3.330		49.3	20.1	121			
Surr: 2-Fluorobiphenyl	0.71		1.670		42.7	19	133			
Surr: 2-Fluorophenol	1.2		3.330		34.6	20.2	108			
Surr: 4-Terphenyl-d14	0.73		1.670		43.6	18.9	115			
Surr: Nitrobenzene-d5	0.67		1.670		39.9	20.8	123			
Surr: Phenol-d5	1.3		3.330		38.0	19.8	115			

Sample ID **lcs-3046** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS** Batch ID: **3046** RunNo: **4555**

Prep Date: **7/26/2012** Analysis Date: **7/31/2012** SeqNo: **127861** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	3.0		3.330		91.5	20.1	121			
Surr: 2-Fluorobiphenyl	1.2		1.670		71.4	19	133			
Surr: 2-Fluorophenol	1.9		3.330		56.8	20.2	108			
Surr: 4-Terphenyl-d14	1.3		1.670		76.8	18.9	115			
Surr: Nitrobenzene-d5	1.2		1.670		69.2	20.8	123			
Surr: Phenol-d5	2.4		3.330		71.7	19.8	115			

Sample ID **1207940-019Cms** SampType: **MS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **BatchQC** Batch ID: **3046** RunNo: **4555**

Prep Date: **7/26/2012** Analysis Date: **7/31/2012** SeqNo: **127874** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	3.2		3.310		95.8	20.1	121			
Surr: 2-Fluorobiphenyl	1.5		1.660		92.9	19	133			
Surr: 2-Fluorophenol	2.5		3.310		76.5	20.2	108			
Surr: 4-Terphenyl-d14	1.7		1.660		102	18.9	115			
Surr: Nitrobenzene-d5	1.5		1.660		91.6	20.8	123			
Surr: Phenol-d5	2.9		3.310		87.9	19.8	115			

Sample ID **1207940-019Cmsd** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **BatchQC** Batch ID: **3046** RunNo: **4555**

Prep Date: **7/26/2012** Analysis Date: **7/31/2012** SeqNo: **127875** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	3.5		3.323		106	20.1	121	0	0	
Surr: 2-Fluorobiphenyl	1.6		1.667		96.8	19	133	0	0	
Surr: 2-Fluorophenol	2.5		3.323		75.0	20.2	108	0	0	
Surr: 4-Terphenyl-d14	1.8		1.667		108	18.9	115	0	0	
Surr: Nitrobenzene-d5	1.5		1.667		90.8	20.8	123	0	0	
Surr: Phenol-d5	3.1		3.323		91.9	19.8	115	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	mb-2989	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles		
Client ID:	PBW	Batch ID:	2989	RunNo:	4400		
Prep Date:	7/24/2012	Analysis Date:	7/24/2012	SeqNo:	122513	Units:	µg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
ıenzyl phthalate	ND	10								
ɔazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-2989**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **2989**	RunNo: **4400**
Prep Date: **7/24/2012**	Analysis Date: **7/24/2012**	SeqNo: **122513** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	170		200.0		85.4	44.2	126			
Surr: 2-Fluorobiphenyl	86		100.0		85.5	37	114			
Surr: 2-Fluorophenol	120		200.0		61.4	23.4	98			
Surr: 4-Terphenyl-d14	79		100.0		79.3	41.3	116			
Surr: Nitrobenzene-d5	84		100.0		84.2	39.5	118			
Surr: Phenol-d5	110		200.0		53.2	20.9	95.9			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **lcs-2989**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **2989**	RunNo: **4400**
Prep Date: **7/24/2012**	Analysis Date: **7/24/2012**	SeqNo: **122514** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	68	10	100.0	0	68.1	38.2	99.4			
4-Chloro-3-methylphenol	140	10	200.0	0	71.3	35.5	108			
2-Chlorophenol	130	10	200.0	0	62.6	29.8	106			
1,4-Dichlorobenzene	47	10	100.0	0	46.8	32.6	91.5			
2,4-Dinitrotoluene	83	10	100.0	0	82.7	44.7	112			
N-Nitrosodi-n-propylamine	70	10	100.0	0	70.3	38.5	105			
4-Nitrophenol	95	10	200.0	0	47.3	11.6	73.1			
Pentachlorophenol	120	20	200.0	0	61.2	20.2	93			
Phenol	84	10	200.0	0	42.0	23	66.1			
Pyrene	71	10	100.0	0	71.2	40.1	101			
1,2,4-Trichlorobenzene	54	10	100.0	0	53.7	37.7	99.1			
Surr: 2,4,6-Tribromophenol	160		200.0		81.9	44.2	126			
Surr: 2-Fluorobiphenyl	73		100.0		72.8	37	114			
Surr: 2-Fluorophenol	98		200.0		49.2	23.4	98			
Surr: 4-Terphenyl-d14	71		100.0		70.6	41.3	116			
Surr: Nitrobenzene-d5	65		100.0		65.1	39.5	118			
Surr: Phenol-d5	91		200.0		45.5	20.9	95.9			

Sample ID **lcsd-2989**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **2989**	RunNo: **4400**
Prep Date: **7/24/2012**	Analysis Date: **7/24/2012**	SeqNo: **122515** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	70	10	100.0	0	69.9	38.2	99.4	2.61	20	
4-Chloro-3-methylphenol	160	10	200.0	0	81.3	35.5	108	13.1	20	
2-Chlorophenol	110	10	200.0	0	55.6	29.8	106	11.9	20	
1,4-Dichlorobenzene	47	10	100.0	0	46.8	32.6	91.5	0.0854	20	
2,4-Dinitrotoluene	91	10	100.0	0	91.2	44.7	112	9.75	20	
N-Nitrosodi-n-propylamine	75	10	100.0	0	74.6	38.5	105	5.82	20	
4-Nitrophenol	92	10	200.0	0	46.1	11.6	73.1	2.55	20	
Pentachlorophenol	110	20	200.0	0	57.5	20.2	93	6.30	20	
Phenol	83	10	200.0	0	41.5	23	66.1	1.15	20	
Pyrene	71	10	100.0	0	71.2	40.1	101	0	20	
1,2,4-Trichlorobenzene	56	10	100.0	0	55.5	37.7	99.1	3.33	20	
Surr: 2,4,6-Tribromophenol	150		200.0		75.1	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	73		100.0		73.1	37	114	0	0	
Surr: 2-Fluorophenol	81		200.0		40.7	23.4	98	0	0	
Surr: 4-Terphenyl-d14	80		100.0		79.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	70		100.0		70.1	39.5	118	0	0	
Surr: Phenol-d5	88		200.0		44.2	20.9	95.9	0	0	

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	MB-3180	SampType:	MBLK	TestCode:	EPA Method 7471: Mercury					
Client ID:	PBS	Batch ID:	3180	RunNo:	4662					
Prep Date:	8/3/2012	Analysis Date:	8/3/2012	SeqNo:	131070	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-3180	SampType:	LCS	TestCode:	EPA Method 7471: Mercury					
Client ID:	LCSS	Batch ID:	3180	RunNo:	4662					
Prep Date:	8/3/2012	Analysis Date:	8/3/2012	SeqNo:	131071	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	102	80	120			

Sample ID	1207917-009CMS	SampType:	MS	TestCode:	EPA Method 7471: Mercury					
Client ID:	BatchQC	Batch ID:	3180	RunNo:	4662					
Prep Date:	8/3/2012	Analysis Date:	8/3/2012	SeqNo:	131078	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1658	0	98.9	75	125			

Sample ID	1207917-009CMSD	SampType:	MSD	TestCode:	EPA Method 7471: Mercury					
Client ID:	BatchQC	Batch ID:	3180	RunNo:	4662					
Prep Date:	8/3/2012	Analysis Date:	8/3/2012	SeqNo:	131081	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.19	0.033	0.1651	0	115	75	125	14.8	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-3107	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals
Client ID:	PBS	Batch ID:	3107	RunNo:	4677
Prep Date:	7/31/2012	Analysis Date:	8/6/2012	SeqNo:	131415
Units:	mg/Kg				

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID	LCS-3107	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals
Client ID:	LCSS	Batch ID:	3107	RunNo:	4677
Prep Date:	7/31/2012	Analysis Date:	8/6/2012	SeqNo:	131416
Units:	mg/Kg				

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	24	2.5	25.00	0	96.5	80	120			
Barium	23	0.10	25.00	0	91.0	80	120			
Beryllium	25	0.15	25.00	0	98.2	80	120			
Cadmium	23	0.10	25.00	0	91.9	80	120			
Chromium	23	0.30	25.00	0	90.5	80	120			
Lead	23	0.25	25.00	0	91.2	80	120			
Manganese	22	0.10	25.00	0	89.5	80	120			
Nickel	22	0.50	25.00	0	88.1	80	120			
Selenium	23	2.5	25.00	0	93.1	80	120			
Silver	4.6	0.25	5.000	0	92.6	80	120			
Vanadium	24	2.5	25.00	0	94.5	80	120			
Zinc	23	2.5	25.00	0	93.0	80	120			

Sample ID	MB-3107	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals
Client ID:	PBS	Batch ID:	3107	RunNo:	4698
Prep Date:	7/31/2012	Analysis Date:	8/6/2012	SeqNo:	132142
Units:	mg/Kg				

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	1.0								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207922

22-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	LCS-3107	SampType:	LCS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	LCSS	Batch ID:	3107		RunNo:	4698				
Prep Date:	7/31/2012	Analysis Date:	8/6/2012		SeqNo:	132143	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	26	1.0	25.00	0.7880	103	80	120			

Sample ID	MB-3107	SampType:	MBLK		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS	Batch ID:	3107		RunNo:	4734				
Prep Date:	7/31/2012	Analysis Date:	8/8/2012		SeqNo:	133431	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Cobalt	ND	0.30								

Sample ID	LCS-3107	SampType:	LCS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	LCSS	Batch ID:	3107		RunNo:	4734				
Prep Date:	7/31/2012	Analysis Date:	8/8/2012		SeqNo:	133432	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	26	2.5	25.00	0	103	80	120			
Cobalt	24	0.30	25.00	0	94.8	80	120			

Sample ID	1207917-006CMS	SampType:	MS		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	BatchQC	Batch ID:	3107		RunNo:	4816				
Prep Date:	7/31/2012	Analysis Date:	8/10/2012		SeqNo:	135937	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	13	12	24.90	3.628	37.5	75	125			S
Arsenic	24	12	24.90	0	95.2	75	125			
Beryllium	25	0.75	24.90	0.7577	99.3	75	125			
Cadmium	24	0.50	24.90	0	94.7	75	125			
Chromium	37	1.5	24.90	12.12	99.0	75	125			
Cobalt	27	1.5	24.90	3.833	91.0	75	125			
Lead	23	1.2	24.90	4.390	76.5	75	125			
Nickel	30	2.5	24.90	7.255	90.8	75	125			
Selenium	19	12	24.90	0	77.0	75	125			
Silver	4.5	1.2	4.981	0	89.7	75	125			
Vanadium	50	12	24.90	20.97	117	75	125			
Zinc	49	12	24.90	35.46	52.9	75	125			S

Sample ID	1207917-006CMSD	SampType:	MSD		TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	BatchQC	Batch ID:	3107		RunNo:	4816				
Prep Date:	7/31/2012	Analysis Date:	8/10/2012		SeqNo:	135940	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	12	24.81	3.628	35.3	75	125	200	20	S

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207922**

22-Aug-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	**1207917-006CMSD**	SampType: **MSD**		TestCode: **EPA Method 6010B: Soil Metals**	
Client ID:	**BatchQC**	Batch ID: **3107**		RunNo: **4816**	
Prep Date:	**7/31/2012**	Analysis Date: **8/10/2012**		SeqNo: **135940**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	22	12	24.81	0	88.4	75	125	7.79	20	
Beryllium	25	0.75	24.81	0.7577	96.5	75	125	3.15	20	
Cadmium	23	0.50	24.81	0	92.9	75	125	2.30	20	
Chromium	33	1.5	24.81	12.12	84.2	75	125	10.8	20	
Cobalt	26	1.5	24.81	3.833	89.7	75	125	1.59	20	
Lead	23	1.2	24.81	4.390	76.6	75	125	0.134	20	
Nickel	28	2.5	24.81	7.255	82.8	75	125	7.18	20	
Selenium	18	12	24.81	0	70.7	75	125	8.91	20	S
Silver	4.3	1.2	4.962	0	86.6	75	125	3.84	20	
Vanadium	46	12	24.81	20.97	98.9	75	125	9.82	20	
Zinc	51	12	24.81	35.46	63.8	75	125	5.31	20	S

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1207922**

Received by/date: 07/20/12

Logged By: **Ashley Gallegos** 7/20/2012 7:55:00 AM

Completed By: **Ashley Gallegos** 7/20/2012 12:08:43 PM

Reviewed By: 07/20/12

Chain of Custody

1. Were seals intact?	Yes	No	Not Present ✓
2. Is Chain of Custody complete?	Yes ✓	No	Not Present
3. How was the sample delivered?	FedEx		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ✓	No	NA
5. Was an attempt made to cool the samples?	Yes ✓	No	NA
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ✓	No	NA
7. Sample(s) in proper container(s)?	Yes ✓	No	
8. Sufficient sample volume for indicated test(s)?	Yes ✓	No	
9. Are samples (except VOA and ONG) properly preserved?	Yes ✓	No	
10. Was preservative added to bottles?	Yes	No ✓	NA
11. VOA vials have zero headspace?	Yes	No	No VOA Vials ✓
12. Were any sample containers received broken?	Yes	No ✓	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✓	No	# of preserved bottles checked for pH: 1 2 (<2 or >12 unless noted)
14. Are matrices correctly identified on Chain of Custody?	Yes ✓	No	Adjusted? —
15. Is it clear what analyses were requested?	Yes ✓	No	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✓	No	Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes No NA ✓

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 4.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1207532	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
7/18/12	1620	SOIL	SWMU 14-9 (0-0.5')	2 ENCORES	—	-001										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1620		SWMU 14-9 (0-0.5') DUP	2 ENCORES	—	-002										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1630		SWMU 14-9 (1.5-2')	2 ENCORES	—	-003										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1640		SWMU 14-9 (4-6')	2 ENCORES	—	-004										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			

Date: 7/19/12 Time: 0830 Relinquished by: _____
Received by: _____ Date Time: 07/20/12 0755
Date: Time: Relinquished by:
Received by: Date Time:

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1207925	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO DRO	METALS			Air Bubbles (Y or N)
7/18/12	1700	SOIL	SWMU 14-9 (13-14')	2 ENCORES	—	-005										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1830		SWMU 14-7 (0-0.5')	2 ENCORES	—	-006										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1850		SWMU 14-7 (1.5-2)	2 ENCORES	—	-007										X						
				2 JARS	—											X	X	X	X			
				2 VIALS	MeOH											X						
	1910		SWMU 14-7 (6-8)	2 ENCORES	—	-008										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/19/12	0830			07/20/12	0755
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: SWMU NO. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 1.0

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Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS	TPH		Air Bubbles (Y or N)
7.18.12	1920	SOIL	SWMU 14-7 (23.5-24)	2 ENCORES	—	-009										X						
↓	↓	↓	↓	2 VIALS	MEOH											X						
				2 JARS	—											X	X	X	X			
7.18.12	1945	WATER	EB071812	6 VOA	HCL & NEAT	-010										X				X		
↓	↓	↓	↓	1 L AMBER	—												X					
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NaOH														X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/19/12	0830	[signature]	[signature]	07/20/12	0755
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Metals List for SWMU No. 14 Old API Separator
Gallup Refinery
Western Refining Southwest, Inc.

Analyte	Analytical Method
Antimony	SW-846 method 6010/6020
Arsenic	SW-846 method 6010/6020
Barium	SW-846 method 6010/6020
Beryllium	SW-846 method 6010/6020
Cadmium	SW-846 method 6010/6020
Chromium	SW-846 method 6010/6020
Cobalt	SW-846 method 6010/6020
Cyanide	SW-846 method 335.4/335.2 mod
Lead	SW-846 method 6010/6020
Mercury	SW-846 method 7470/7471
Nickel	SW-846 method 6010/6020
Selenium	SW-846 method 6010/6020
Silver	SW-846 method 6010/6020
Vanadium	SW-846 method 6010/6020
Zinc	SW-846 method 6010/6020
Iron	SW-846 method 6010/6020
Manganese	SW-846 method 6010/6020

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 21, 2012

Scott Crouch
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.14 OrderNo.: 1207940

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 34 sample(s) on 7/20/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1207940**
Date Reported: **8/21/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (0-0.5')
Collection Date: 7/19/2012 11:00:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	350	10		mg/Kg	1	7/23/2012 10:46:54 AM
Motor Oil Range Organics (MRO)	190	50		mg/Kg	1	7/23/2012 10:46:54 AM
Surr: DNOP	111	77.6-140		%REC	1	7/23/2012 10:46:54 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	10		mg/Kg	2	7/27/2012 2:33:57 AM
Surr: BFB	103	84-116		%REC	2	7/27/2012 2:33:57 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.32	0.033		mg/Kg	1	8/2/2012 9:11:33 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 2:33:40 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 3:32:50 PM
Barium	430	5.0		mg/Kg	50	8/5/2012 12:52:36 PM
Beryllium	0.89	0.75		mg/Kg	5	8/4/2012 3:32:50 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 2:33:40 PM
Chromium	23	1.5		mg/Kg	5	8/1/2012 2:33:40 PM
Cobalt	5.4	1.5		mg/Kg	5	8/4/2012 3:32:50 PM
Iron	15000	500		mg/Kg	500	8/5/2012 12:54:47 PM
Lead	7.7	1.2		mg/Kg	5	8/4/2012 3:32:50 PM
Manganese	510	5.0		mg/Kg	50	8/5/2012 12:52:36 PM
Nickel	9.3	2.5		mg/Kg	5	8/4/2012 3:32:50 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 3:32:50 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 2:33:40 PM
Vanadium	25	12		mg/Kg	5	8/1/2012 2:33:40 PM
Zinc	49	12		mg/Kg	5	8/4/2012 3:32:50 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Aniline	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Anthracene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Azobenzene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (0-0.5')
Collection Date: 7/19/2012 11:00:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Carbazole	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/27/2012 4:18:42 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Chrysene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/27/2012 4:18:42 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
3,3´-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/27/2012 4:18:42 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/27/2012 4:18:42 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/27/2012 4:18:42 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/27/2012 4:18:42 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Fluorene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Isophorone	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Naphthalene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (0-0.5')
Collection Date: 7/19/2012 11:00:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/27/2012 4:18:42 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/27/2012 4:18:42 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/27/2012 4:18:42 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Phenol	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Pyrene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Pyridine	ND	2.5		mg/Kg	1	7/27/2012 4:18:42 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 4:18:42 PM
Surr: 2,4,6-Tribromophenol	104	20.1-121		%REC	1	7/27/2012 4:18:42 PM
Surr: 2-Fluorobiphenyl	93.2	19-133		%REC	1	7/27/2012 4:18:42 PM
Surr: 2-Fluorophenol	92.3	20.2-108		%REC	1	7/27/2012 4:18:42 PM
Surr: 4-Terphenyl-d14	97.6	18.9-115		%REC	1	7/27/2012 4:18:42 PM
Surr: Nitrobenzene-d5	91.6	20.8-123		%REC	1	7/27/2012 4:18:42 PM
Surr: Phenol-d5	83.0	19.8-115		%REC	1	7/27/2012 4:18:42 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Toluene	2.92	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Ethylbenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Xylenes, Total	ND	2.94		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Methyl tert-butyl ether (MTBE)	ND	1.96		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2,4-Trimethylbenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,3,5-Trimethylbenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2-Dichloroethane (EDC)	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2-Dibromoethane (EDB)	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Naphthalene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1-Methylnaphthalene	ND	3.93		µg/Kg-dry	1	7/26/2012 7:57:54 PM
2-Methylnaphthalene	ND	3.93		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Acetone	ND	29.4		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Bromobenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Bromodichloromethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Bromoform	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
2-Butanone	ND	4.91		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Carbon tetrachloride	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Chlorobenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Chloroethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Chloroform	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (0-0.5')
Collection Date: 7/19/2012 11:00:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
2-Chlorotoluene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Carbon disulfide	ND	4.91		µg/Kg-dry	1	7/26/2012 7:57:54 PM
4-Chlorotoluene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
cis-1,2-DCE	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
cis-1,3-Dichloropropene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2-Dibromo-3-chloropropane	ND	1.96		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Dibromochloromethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Dibromomethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2-Dichlorobenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,3-Dichlorobenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,4-Dichlorobenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Dichlorodifluoromethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,1-Dichloroethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,1-Dichloroethene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2-Dichloropropane	ND	1.96		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,3-Dichloropropane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
2,2-Dichloropropane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,1-Dichloropropene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Hexachlorobutadiene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Isopropylbenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
4-Isopropyltoluene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Methylene chloride	ND	4.91		µg/Kg-dry	1	7/26/2012 7:57:54 PM
n-Butylbenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
2-Hexanone	ND	4.91		µg/Kg-dry	1	7/26/2012 7:57:54 PM
n-Propylbenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
sec-Butylbenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Styrene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
4-Methyl-2-pentanone	ND	4.91		µg/Kg-dry	1	7/26/2012 7:57:54 PM
tert-Butylbenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,1,1,2-Tetrachloroethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,1,2,2-Tetrachloroethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Tetrachloroethene (PCE)	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
trans-1,2-DCE	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
trans-1,3-Dichloropropene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2,3-Trichlorobenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2,4-Trichlorobenzene	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,1,1-Trichloroethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,1,2-Trichloroethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Trichloroethene (TCE)	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Trichlorofluoromethane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
1,2,3-Trichloropropane	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (0-0.5')
Collection Date: 7/19/2012 11:00:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.981		µg/Kg-dry	1	7/26/2012 7:57:54 PM
Surr: 1,2-Dichloroethane-d4	99.2	70-130		%REC	1	7/26/2012 7:57:54 PM
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	1	7/26/2012 7:57:54 PM
Surr: Dibromofluoromethane	88.0	70-130		%REC	1	7/26/2012 7:57:54 PM
Surr: Toluene-d8	97.9	70-130		%REC	1	7/26/2012 7:57:54 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (1.5-2.0')
Collection Date: 7/19/2012 11:05:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	240	10		mg/Kg	1	7/23/2012 11:12:14 AM
Motor Oil Range Organics (MRO)	150	51		mg/Kg	1	7/23/2012 11:12:14 AM
Surr: DNOP	111	77.6-140		%REC	1	7/23/2012 11:12:14 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	10		mg/Kg	2	7/27/2012 3:02:41 AM
Surr: BFB	101	84-116		%REC	2	7/27/2012 3:02:41 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.21	0.16		mg/Kg	5	8/2/2012 9:29:23 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 2:38:44 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 3:35:11 PM
Barium	430	5.0		mg/Kg	50	8/5/2012 12:57:26 PM
Beryllium	0.83	0.75		mg/Kg	5	8/4/2012 3:35:11 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 2:38:44 PM
Chromium	23	1.5		mg/Kg	5	8/1/2012 2:38:44 PM
Cobalt	5.1	1.5		mg/Kg	5	8/4/2012 3:35:11 PM
Iron	14000	500		mg/Kg	500	8/5/2012 12:59:38 PM
Lead	6.8	1.2		mg/Kg	5	8/4/2012 3:35:11 PM
Manganese	530	5.0		mg/Kg	50	8/5/2012 12:57:26 PM
Nickel	8.8	2.5		mg/Kg	5	8/4/2012 3:35:11 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 3:35:11 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 2:38:44 PM
Vanadium	23	12		mg/Kg	5	8/1/2012 2:38:44 PM
Zinc	43	12		mg/Kg	5	8/4/2012 3:35:11 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Acenaphthylene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Aniline	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Anthracene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Azobenzene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Benz(a)anthracene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Benzo(a)pyrene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Benzo(b)fluoranthene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Benzo(g,h,i)perylene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Benzo(k)fluoranthene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
Benzyl alcohol	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Bis(2-chloroethoxy)methane	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Bis(2-chloroethyl)ether	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Bis(2-chloroisopropyl)ether	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (1.5-2.0')
Collection Date: 7/19/2012 11:05:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
4-Bromophenyl phenyl ether	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Butyl benzyl phthalate	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Carbazole	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/27/2012 4:48:12 PM
2-Chlorophenol	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
4-Chlorophenyl phenyl ether	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Chrysene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/27/2012 4:48:12 PM
Dibenz(a,h)anthracene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Dibenzofuran	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
1,2-Dichlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
1,3-Dichlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
1,4-Dichlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/27/2012 4:48:12 PM
Diethyl phthalate	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Dimethyl phthalate	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/27/2012 4:48:12 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/27/2012 4:48:12 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/27/2012 4:48:12 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
Fluoranthene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Fluorene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Hexachlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Hexachlorobutadiene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Hexachlorocyclopentadiene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Hexachloroethane	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Indeno(1,2,3-cd)pyrene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Isophorone	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
1-Methylnaphthalene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
2-Methylnaphthalene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
3+4-Methylphenol	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
N-Nitrosodi-n-propylamine	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
N-Nitrosodiphenylamine	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Naphthalene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
2-Nitroaniline	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (1.5-2.0')
Collection Date: 7/19/2012 11:05:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/27/2012 4:48:12 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
2-Nitrophenol	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/27/2012 4:48:12 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/27/2012 4:48:12 PM
Phenanthrene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Phenol	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Pyrene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Pyridine	ND	2.5		mg/Kg	1	7/27/2012 4:48:12 PM
1,2,4-Trichlorobenzene	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
2,4,5-Trichlorophenol	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
2,4,6-Trichlorophenol	ND	0.99		mg/Kg	1	7/27/2012 4:48:12 PM
Surr: 2,4,6-Tribromophenol	105	20.1-121		%REC	1	7/27/2012 4:48:12 PM
Surr: 2-Fluorobiphenyl	96.1	19-133		%REC	1	7/27/2012 4:48:12 PM
Surr: 2-Fluorophenol	89.6	20.2-108		%REC	1	7/27/2012 4:48:12 PM
Surr: 4-Terphenyl-d14	100	18.9-115		%REC	1	7/27/2012 4:48:12 PM
Surr: Nitrobenzene-d5	93.1	20.8-123		%REC	1	7/27/2012 4:48:12 PM
Surr: Phenol-d5	85.9	19.8-115		%REC	1	7/27/2012 4:48:12 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Toluene	0.892	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Ethylbenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Xylenes, Total	ND	2.64		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Methyl tert-butyl ether (MTBE)	ND	1.76		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2,4-Trimethylbenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,3,5-Trimethylbenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2-Dichloroethane (EDC)	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2-Dibromoethane (EDB)	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Naphthalene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1-Methylnaphthalene	ND	3.52		µg/Kg-dry	1	7/26/2012 8:25:36 PM
2-Methylnaphthalene	ND	3.52		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Acetone	ND	26.4		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Bromobenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Bromodichloromethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Bromoform	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
2-Butanone	ND	4.39		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Carbon tetrachloride	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Chlorobenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Chloroethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Chloroform	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-10 (1.5-2.0')
Collection Date: 7/19/2012 11:05:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
2-Chlorotoluene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Carbon disulfide	ND	4.39		µg/Kg-dry	1	7/26/2012 8:25:36 PM
4-Chlorotoluene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
cis-1,2-DCE	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
cis-1,3-Dichloropropene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2-Dibromo-3-chloropropane	ND	1.76		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Dibromochloromethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Dibromomethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2-Dichlorobenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,3-Dichlorobenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,4-Dichlorobenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Dichlorodifluoromethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,1-Dichloroethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,1-Dichloroethene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2-Dichloropropane	ND	1.76		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,3-Dichloropropane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
2,2-Dichloropropane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,1-Dichloropropene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Hexachlorobutadiene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Isopropylbenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
4-Isopropyltoluene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Methylene chloride	ND	4.39		µg/Kg-dry	1	7/26/2012 8:25:36 PM
n-Butylbenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
2-Hexanone	ND	4.39		µg/Kg-dry	1	7/26/2012 8:25:36 PM
n-Propylbenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
sec-Butylbenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Styrene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
4-Methyl-2-pentanone	ND	4.39		µg/Kg-dry	1	7/26/2012 8:25:36 PM
tert-Butylbenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,1,1,2-Tetrachloroethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,1,2,2-Tetrachloroethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Tetrachloroethene (PCE)	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
trans-1,2-DCE	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
trans-1,3-Dichloropropene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2,3-Trichlorobenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2,4-Trichlorobenzene	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,1,1-Trichloroethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,1,2-Trichloroethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Trichloroethene (TCE)	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Trichlorofluoromethane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
1,2,3-Trichloropropane	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-10 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 11:05:00 AM
Lab ID: 1207940-002 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.879		µg/Kg-dry	1	7/26/2012 8:25:36 PM
Surr: 1,2-Dichloroethane-d4	188	70-130	S	%REC	1	7/26/2012 8:25:36 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	7/26/2012 8:25:36 PM
Surr: Dibromofluoromethane	92.1	70-130		%REC	1	7/26/2012 8:25:36 PM
Surr: Toluene-d8	94.8	70-130		%REC	1	7/26/2012 8:25:36 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-8 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 11:27:00 AM
Lab ID: 1207940-003 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	550	200		mg/Kg	20	7/23/2012 9:29:46 AM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	7/23/2012 9:29:46 AM
Surr: DNOP	0	77.6-140	S	%REC	20	7/23/2012 9:29:46 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	7/27/2012 3:31:25 AM
Surr: BFB	99.9	84-116		%REC	5	7/27/2012 3:31:25 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.041	0.033		mg/Kg	1	8/2/2012 9:20:31 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 2:43:53 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 3:37:35 PM
Barium	610	5.0		mg/Kg	50	8/5/2012 1:02:12 PM
Beryllium	0.77	0.75		mg/Kg	5	8/4/2012 3:37:35 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 2:43:53 PM
Chromium	16	1.5		mg/Kg	5	8/1/2012 2:43:53 PM
Cobalt	5.0	1.5		mg/Kg	5	8/4/2012 3:37:35 PM
Iron	15000	500		mg/Kg	500	8/5/2012 1:14:21 PM
Lead	6.2	1.2		mg/Kg	5	8/4/2012 3:37:35 PM
Manganese	470	5.0		mg/Kg	50	8/5/2012 1:02:12 PM
Nickel	7.4	2.5		mg/Kg	5	8/4/2012 3:37:35 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 3:37:35 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 2:43:53 PM
Vanadium	25	12		mg/Kg	5	8/1/2012 2:43:53 PM
Zinc	33	12		mg/Kg	5	8/4/2012 3:37:35 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Aniline	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Anthracene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Azobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
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- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-8 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 11:27:00 AM
Lab ID: 1207940-003 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Carbazole	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/27/2012 5:17:55 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Chrysene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/27/2012 5:17:55 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/27/2012 5:17:55 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/27/2012 5:17:55 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/27/2012 5:17:55 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/27/2012 5:17:55 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Fluorene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Isophorone	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Naphthalene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (0-0.5')
Collection Date: 7/19/2012 11:27:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/27/2012 5:17:55 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/27/2012 5:17:55 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/27/2012 5:17:55 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Phenol	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Pyrene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Pyridine	ND	2.5		mg/Kg	1	7/27/2012 5:17:55 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 5:17:55 PM
Surr: 2,4,6-Tribromophenol	107	20.1-121		%REC	1	7/27/2012 5:17:55 PM
Surr: 2-Fluorobiphenyl	95.5	19-133		%REC	1	7/27/2012 5:17:55 PM
Surr: 2-Fluorophenol	92.9	20.2-108		%REC	1	7/27/2012 5:17:55 PM
Surr: 4-Terphenyl-d14	97.3	18.9-115		%REC	1	7/27/2012 5:17:55 PM
Surr: Nitrobenzene-d5	93.5	20.8-123		%REC	1	7/27/2012 5:17:55 PM
Surr: Phenol-d5	84.8	19.8-115		%REC	1	7/27/2012 5:17:55 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	12.2	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Toluene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Ethylbenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Xylenes, Total	ND	2.54		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Methyl tert-butyl ether (MTBE)	ND	1.69		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2,4-Trimethylbenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,3,5-Trimethylbenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2-Dichloroethane (EDC)	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2-Dibromoethane (EDB)	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Naphthalene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1-Methylnaphthalene	ND	3.39		µg/Kg-dry	1	7/26/2012 8:53:14 PM
2-Methylnaphthalene	ND	3.39		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Acetone	ND	25.4		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Bromobenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Bromodichloromethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Bromoform	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
2-Butanone	ND	4.23		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Carbon tetrachloride	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Chlorobenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Chloroethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Chloroform	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (0-0.5')
Collection Date: 7/19/2012 11:27:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
2-Chlorotoluene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Carbon disulfide	ND	4.23		µg/Kg-dry	1	7/26/2012 8:53:14 PM
4-Chlorotoluene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
cis-1,2-DCE	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
cis-1,3-Dichloropropene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2-Dibromo-3-chloropropane	ND	1.69		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Dibromochloromethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Dibromomethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2-Dichlorobenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,3-Dichlorobenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,4-Dichlorobenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Dichlorodifluoromethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,1-Dichloroethane	0.918	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,1-Dichloroethene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2-Dichloropropane	ND	1.69		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,3-Dichloropropane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
2,2-Dichloropropane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,1-Dichloropropene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Hexachlorobutadiene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Isopropylbenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
4-Isopropyltoluene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Methylene chloride	ND	4.23		µg/Kg-dry	1	7/26/2012 8:53:14 PM
n-Butylbenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
2-Hexanone	ND	4.23		µg/Kg-dry	1	7/26/2012 8:53:14 PM
n-Propylbenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
sec-Butylbenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Styrene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
4-Methyl-2-pentanone	ND	4.23		µg/Kg-dry	1	7/26/2012 8:53:14 PM
tert-Butylbenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,1,1,2-Tetrachloroethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,1,2,2-Tetrachloroethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Tetrachloroethene (PCE)	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
trans-1,2-DCE	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
trans-1,3-Dichloropropene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2,3-Trichlorobenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2,4-Trichlorobenzene	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,1,1-Trichloroethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,1,2-Trichloroethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Trichloroethene (TCE)	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Trichlorofluoromethane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
1,2,3-Trichloropropane	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (0-0.5')
Collection Date: 7/19/2012 11:27:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.847		µg/Kg-dry	1	7/26/2012 8:53:14 PM
Surr: 1,2-Dichloroethane-d4	168	70-130	S	%REC	1	7/26/2012 8:53:14 PM
Surr: 4-Bromofluorobenzene	96.7	70-130		%REC	1	7/26/2012 8:53:14 PM
Surr: Dibromofluoromethane	87.2	70-130		%REC	1	7/26/2012 8:53:14 PM
Surr: Toluene-d8	96.6	70-130		%REC	1	7/26/2012 8:53:14 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (1.5-2.0')
Collection Date: 7/19/2012 11:40:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	4300	200		mg/Kg	20	7/23/2012 9:51:40 AM
Motor Oil Range Organics (MRO)	ND	990		mg/Kg	20	7/23/2012 9:51:40 AM
Surr: DNOP	0	77.6-140	S	%REC	20	7/23/2012 9:51:40 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	7/27/2012 4:00:09 AM
Surr: BFB	111	84-116		%REC	50	7/27/2012 4:00:09 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 9:22:17 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 2:48:46 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 3:39:56 PM
Barium	690	50		mg/Kg	500	8/5/2012 1:16:54 PM
Beryllium	0.88	0.75		mg/Kg	5	8/4/2012 3:39:56 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 2:48:46 PM
Chromium	10	1.5		mg/Kg	5	8/1/2012 2:48:46 PM
Cobalt	4.7	1.5		mg/Kg	5	8/4/2012 3:39:56 PM
Iron	13000	500		mg/Kg	500	8/5/2012 1:16:54 PM
Lead	5.0	1.2		mg/Kg	5	8/4/2012 3:39:56 PM
Manganese	190	0.50		mg/Kg	5	8/4/2012 3:39:56 PM
Nickel	7.9	2.5		mg/Kg	5	8/4/2012 3:39:56 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 3:39:56 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 2:48:46 PM
Vanadium	18	12		mg/Kg	5	8/1/2012 2:48:46 PM
Zinc	15	12		mg/Kg	5	8/4/2012 3:39:56 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Aniline	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Anthracene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Azobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM

Qualifiers:

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- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-8 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 11:40:00 AM
Lab ID: 1207940-004 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Carbazole	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/27/2012 5:47:57 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Chrysene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/27/2012 5:47:57 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/27/2012 5:47:57 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/27/2012 5:47:57 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/27/2012 5:47:57 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/27/2012 5:47:57 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Fluorene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Isophorone	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
1-Methylnaphthalene	3.6	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
2-Methylnaphthalene	4.2	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Naphthalene	1.5	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-8 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 11:40:00 AM
Lab ID: 1207940-004 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/27/2012 5:47:57 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/27/2012 5:47:57 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/27/2012 5:47:57 PM
Phenanthrene	1.1	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Phenol	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Pyrene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Pyridine	ND	2.5		mg/Kg	1	7/27/2012 5:47:57 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 5:47:57 PM
Surr: 2,4,6-Tribromophenol	87.4	20.1-121		%REC	1	7/27/2012 5:47:57 PM
Surr: 2-Fluorobiphenyl	70.0	19-133		%REC	1	7/27/2012 5:47:57 PM
Surr: 2-Fluorophenol	72.2	20.2-108		%REC	1	7/27/2012 5:47:57 PM
Surr: 4-Terphenyl-d14	75.0	18.9-115		%REC	1	7/27/2012 5:47:57 PM
Surr: Nitrobenzene-d5	0	20.8-123	S	%REC	1	7/27/2012 5:47:57 PM
Surr: Phenol-d5	86.8	19.8-115		%REC	1	7/27/2012 5:47:57 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Toluene	1.4	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Ethylbenzene	3.8	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2,4-Trimethylbenzene	6.7	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,3,5-Trimethylbenzene	2.2	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Naphthalene	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
1-Methylnaphthalene	ND	4.0		mg/Kg	20	7/23/2012 11:36:10 PM
2-Methylnaphthalene	ND	4.0		mg/Kg	20	7/23/2012 11:36:10 PM
Acetone	ND	15		mg/Kg	20	7/23/2012 11:36:10 PM
Bromobenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Bromoform	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Bromomethane	ND	3.0		mg/Kg	20	7/23/2012 11:36:10 PM
2-Butanone	ND	10		mg/Kg	20	7/23/2012 11:36:10 PM
Carbon disulfide	ND	10		mg/Kg	20	7/23/2012 11:36:10 PM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
Chlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Chloroethane	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (1.5-2.0')
Collection Date: 7/19/2012 11:40:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Chloromethane	ND	3.0		mg/Kg	20	7/23/2012 11:36:10 PM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Dibromomethane	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
2-Hexanone	ND	10		mg/Kg	20	7/23/2012 11:36:10 PM
Isopropylbenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
4-Isopropyltoluene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/23/2012 11:36:10 PM
Methylene chloride	ND	3.0		mg/Kg	20	7/23/2012 11:36:10 PM
n-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
n-Propylbenzene	1.4	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
sec-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Styrene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,1,2-Trichloroethane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/23/2012 11:36:10 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (1.5-2.0')
Collection Date: 7/19/2012 11:40:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	1.0		mg/Kg	20	7/23/2012 11:36:10 PM
Xylenes, Total	9.3	2.0		mg/Kg	20	7/23/2012 11:36:10 PM
Surr: 1,2-Dichloroethane-d4	93.1	70-130		%REC	20	7/23/2012 11:36:10 PM
Surr: 4-Bromofluorobenzene	86.6	70-130		%REC	20	7/23/2012 11:36:10 PM
Surr: Dibromofluoromethane	108	70-130		%REC	20	7/23/2012 11:36:10 PM
Surr: Toluene-d8	101	70-130		%REC	20	7/23/2012 11:36:10 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (1.5-2.0') DUP
Collection Date: 7/19/2012 11:40:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	3600	200		mg/Kg	20	7/23/2012 10:13:29 AM
Motor Oil Range Organics (MRO)	ND	980		mg/Kg	20	7/23/2012 10:13:29 AM
Surr: DNOP	0	77.6-140	S	%REC	20	7/23/2012 10:13:29 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	7/27/2012 4:28:51 AM
Surr: BFB	115	84-116		%REC	50	7/27/2012 4:28:51 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 9:24:04 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:02:41 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 3:42:19 PM
Barium	410	10		mg/Kg	100	8/5/2012 1:21:10 PM
Beryllium	0.93	0.75		mg/Kg	5	8/4/2012 3:42:19 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:02:41 PM
Chromium	11	1.5		mg/Kg	5	8/1/2012 3:02:41 PM
Cobalt	5.0	1.5		mg/Kg	5	8/4/2012 3:42:19 PM
Iron	14000	500		mg/Kg	500	8/5/2012 1:23:20 PM
Lead	3.7	1.2		mg/Kg	5	8/4/2012 3:42:19 PM
Manganese	210	0.50		mg/Kg	5	8/4/2012 3:42:19 PM
Nickel	8.5	2.5		mg/Kg	5	8/4/2012 3:42:19 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 3:42:19 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 3:02:41 PM
Vanadium	21	12		mg/Kg	5	8/1/2012 3:02:41 PM
Zinc	17	12		mg/Kg	5	8/4/2012 3:42:19 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Aniline	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Anthracene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Azobenzene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM

Qualifiers:

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- B Analyte detected in the associated Method Blank
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- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-8 (1.5-2.0') DUP
Project: SWMU NO.14
Collection Date: 7/19/2012 11:40:00 AM
Lab ID: 1207940-005 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Carbazole	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/27/2012 6:18:03 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Chrysene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/27/2012 6:18:03 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/27/2012 6:18:03 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/27/2012 6:18:03 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/27/2012 6:18:03 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/27/2012 6:18:03 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Fluorene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Isophorone	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
1-Methylnaphthalene	1.5	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
2-Methylnaphthalene	1.6	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Naphthalene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (1.5-2.0') DUP
Collection Date: 7/19/2012 11:40:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
3-Nitroaniline	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/27/2012 6:18:03 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/27/2012 6:18:03 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/27/2012 6:18:03 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Phenol	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Pyrene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Pyridine	ND	2.5		mg/Kg	1	7/27/2012 6:18:03 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/27/2012 6:18:03 PM
Surr: 2,4,6-Tribromophenol	111	20.1-121		%REC	1	7/27/2012 6:18:03 PM
Surr: 2-Fluorobiphenyl	92.7	19-133		%REC	1	7/27/2012 6:18:03 PM
Surr: 2-Fluorophenol	103	20.2-108		%REC	1	7/27/2012 6:18:03 PM
Surr: 4-Terphenyl-d14	110	18.9-115		%REC	1	7/27/2012 6:18:03 PM
Surr: Nitrobenzene-d5	114	20.8-123		%REC	1	7/27/2012 6:18:03 PM
Surr: Phenol-d5	106	19.8-115		%REC	1	7/27/2012 6:18:03 PM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Toluene	1.7	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Ethylbenzene	4.7	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2,4-Trimethylbenzene	8.4	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,3,5-Trimethylbenzene	2.7	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Naphthalene	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
1-Methylnaphthalene	ND	4.0		mg/Kg	20	7/24/2012 12:32:38 AM
2-Methylnaphthalene	ND	4.0		mg/Kg	20	7/24/2012 12:32:38 AM
Acetone	ND	15		mg/Kg	20	7/24/2012 12:32:38 AM
Bromobenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Bromoform	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Bromomethane	ND	3.0		mg/Kg	20	7/24/2012 12:32:38 AM
2-Butanone	ND	10		mg/Kg	20	7/24/2012 12:32:38 AM
Carbon disulfide	ND	10		mg/Kg	20	7/24/2012 12:32:38 AM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
Chlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Chloroethane	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
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- R RPD outside accepted recovery limits
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (1.5-2.0') DUP
Collection Date: 7/19/2012 11:40:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Chloromethane	ND	3.0		mg/Kg	20	7/24/2012 12:32:38 AM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Dibromomethane	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
2-Hexanone	ND	10		mg/Kg	20	7/24/2012 12:32:38 AM
Isopropylbenzene	1.2	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
4-Isopropyltoluene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/24/2012 12:32:38 AM
Methylene chloride	ND	3.0		mg/Kg	20	7/24/2012 12:32:38 AM
n-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
n-Propylbenzene	1.7	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
sec-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Styrene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,1,2-Trichloroethane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/24/2012 12:32:38 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-8 (1.5-2.0') DUP
Collection Date: 7/19/2012 11:40:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	1.0		mg/Kg	20	7/24/2012 12:32:38 AM
Xylenes, Total	12	2.0		mg/Kg	20	7/24/2012 12:32:38 AM
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%REC	20	7/24/2012 12:32:38 AM
Surr: 4-Bromofluorobenzene	78.2	70-130		%REC	20	7/24/2012 12:32:38 AM
Surr: Dibromofluoromethane	104	70-130		%REC	20	7/24/2012 12:32:38 AM
Surr: Toluene-d8	104	70-130		%REC	20	7/24/2012 12:32:38 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-12 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 12:05:00 PM
Lab ID: 1207940-006 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	15000	190		mg/Kg	20	7/23/2012 10:57:23 AM
Motor Oil Range Organics (MRO)	ND	970		mg/Kg	20	7/23/2012 10:57:23 AM
Surr: DNOP	0	77.6-140	S	%REC	20	7/23/2012 10:57:23 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	700	500		mg/Kg	100	7/27/2012 4:57:29 AM
Surr: BFB	111	84-116		%REC	100	7/27/2012 4:57:29 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.040	0.033		mg/Kg	1	8/2/2012 9:34:47 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:07:46 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 3:44:40 PM
Barium	150	0.50		mg/Kg	5	8/4/2012 3:44:40 PM
Beryllium	1.0	0.75		mg/Kg	5	8/4/2012 3:44:40 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:07:46 PM
Chromium	12	1.5		mg/Kg	5	8/1/2012 3:07:46 PM
Cobalt	5.9	1.5		mg/Kg	5	8/4/2012 3:44:40 PM
Iron	15000	500		mg/Kg	500	8/5/2012 1:25:53 PM
Lead	4.4	1.2		mg/Kg	5	8/4/2012 3:44:40 PM
Manganese	240	0.50		mg/Kg	5	8/4/2012 3:44:40 PM
Nickel	9.8	2.5		mg/Kg	5	8/4/2012 3:44:40 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 3:44:40 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 3:07:46 PM
Vanadium	23	12		mg/Kg	5	8/1/2012 3:07:46 PM
Zinc	18	12		mg/Kg	5	8/4/2012 3:44:40 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Acenaphthylene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Aniline	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Anthracene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Azobenzene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Benzoic acid	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-006 **Matrix:** SOIL

Client Sample ID: SWMU 14-12 (0-0.5')
Collection Date: 7/19/2012 12:05:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Carbazole	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	7/27/2012 6:48:08 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Chrysene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	7/27/2012 6:48:08 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Dibenzofuran	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
3,3´-Dichlorobenzidine	ND	0.50		mg/Kg	1	7/27/2012 6:48:08 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	7/27/2012 6:48:08 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	7/27/2012 6:48:08 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	7/27/2012 6:48:08 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
Fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Fluorene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Hexachloroethane	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Isophorone	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
1-Methylnaphthalene	21	4.0		mg/Kg	10	7/30/2012 5:05:23 PM
2-Methylnaphthalene	32	4.0		mg/Kg	10	7/30/2012 5:05:23 PM
2-Methylphenol	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
3+4-Methylphenol	1.1	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Naphthalene	6.6	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-12 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 12:05:00 PM
Lab ID: 1207940-006 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	7/27/2012 6:48:08 PM
Nitrobenzene	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	7/27/2012 6:48:08 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	7/27/2012 6:48:08 PM
Phenanthrene	7.3	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Phenol	2.1	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Pyrene	1.1	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Pyridine	ND	1.0		mg/Kg	1	7/27/2012 6:48:08 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 6:48:08 PM
Surr: 2,4,6-Tribromophenol	0	20.1-121	S	%REC	1	7/27/2012 6:48:08 PM
Surr: 2-Fluorobiphenyl	46.3	19-133		%REC	1	7/27/2012 6:48:08 PM
Surr: 2-Fluorophenol	30.2	20.2-108		%REC	1	7/27/2012 6:48:08 PM
Surr: 4-Terphenyl-d14	62.5	18.9-115		%REC	1	7/27/2012 6:48:08 PM
Surr: Nitrobenzene-d5	0	20.8-123	S	%REC	1	7/27/2012 6:48:08 PM
Surr: Phenol-d5	67.0	19.8-115		%REC	1	7/27/2012 6:48:08 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	5.9	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Toluene	45	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Ethylbenzene	17	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Methyl tert-butyl ether (MTBE)	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,2,4-Trimethylbenzene	38	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,3,5-Trimethylbenzene	11	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,2-Dichloroethane (EDC)	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,2-Dibromoethane (EDB)	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Naphthalene	16	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
1-Methylnaphthalene	29	10		mg/Kg	50	7/22/2012 12:37:39 AM
2-Methylnaphthalene	50	10		mg/Kg	50	7/22/2012 12:37:39 AM
Acetone	ND	38		mg/Kg	50	7/22/2012 12:37:39 AM
Bromobenzene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Bromodichloromethane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Bromoform	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Bromomethane	ND	7.5		mg/Kg	50	7/22/2012 12:37:39 AM
2-Butanone	ND	25		mg/Kg	50	7/22/2012 12:37:39 AM
Carbon disulfide	ND	25		mg/Kg	50	7/22/2012 12:37:39 AM
Carbon tetrachloride	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
Chlorobenzene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Chloroethane	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-006 **Matrix:** SOIL

Client Sample ID: SWMU 14-12 (0-0.5')
Collection Date: 7/19/2012 12:05:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Chloromethane	ND	7.5		mg/Kg	50	7/22/2012 12:37:39 AM
2-Chlorotoluene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
4-Chlorotoluene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
cis-1,2-DCE	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
cis-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,2-Dibromo-3-chloropropane	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
Dibromochloromethane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Dibromomethane	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
1,2-Dichlorobenzene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,3-Dichlorobenzene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,4-Dichlorobenzene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Dichlorodifluoromethane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,1-Dichloroethane	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
1,1-Dichloroethene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,2-Dichloropropane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,3-Dichloropropane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
2,2-Dichloropropane	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
1,1-Dichloropropene	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
Hexachlorobutadiene	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
2-Hexanone	ND	25		mg/Kg	50	7/22/2012 12:37:39 AM
Isopropylbenzene	3.0	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
4-Isopropyltoluene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
4-Methyl-2-pentanone	ND	25		mg/Kg	50	7/22/2012 12:37:39 AM
Methylene chloride	ND	7.5		mg/Kg	50	7/22/2012 12:37:39 AM
n-Butylbenzene	4.0	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
n-Propylbenzene	6.2	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
sec-Butylbenzene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Styrene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
tert-Butylbenzene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,1,1,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,1,2,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Tetrachloroethene (PCE)	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
trans-1,2-DCE	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
trans-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,2,3-Trichlorobenzene	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
1,2,4-Trichlorobenzene	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,1,1-Trichloroethane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,1,2-Trichloroethane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Trichloroethene (TCE)	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Trichlorofluoromethane	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
1,2,3-Trichloropropane	ND	5.0		mg/Kg	50	7/22/2012 12:37:39 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-006 **Matrix:** SOIL

Client Sample ID: SWMU 14-12 (0-0.5')
Collection Date: 7/19/2012 12:05:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	2.5		mg/Kg	50	7/22/2012 12:37:39 AM
Xylenes, Total	86	5.0		mg/Kg	50	7/22/2012 12:37:39 AM
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%REC	50	7/22/2012 12:37:39 AM
Surr: 4-Bromofluorobenzene	86.2	70-130		%REC	50	7/22/2012 12:37:39 AM
Surr: Dibromofluoromethane	93.3	70-130		%REC	50	7/22/2012 12:37:39 AM
Surr: Toluene-d8	97.4	70-130		%REC	50	7/22/2012 12:37:39 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-007 **Matrix:** SOIL

Client Sample ID: SWMU 14-12 (1.5-2.0')
Collection Date: 7/19/2012 12:12:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	1500	97		mg/Kg	10	7/23/2012 7:19:35 AM
Motor Oil Range Organics (MRO)	ND	490		mg/Kg	10	7/23/2012 7:19:35 AM
Surr: DNOP	0	77.6-140	S	%REC	10	7/23/2012 7:19:35 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	370	100		mg/Kg	20	7/30/2012 4:07:16 PM
Surr: BFB	115	84-116		%REC	20	7/30/2012 4:07:16 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.097	0.033		mg/Kg	1	8/2/2012 9:36:35 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:12:50 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 3:47:03 PM
Barium	120	0.50		mg/Kg	5	8/4/2012 3:47:03 PM
Beryllium	0.95	0.75		mg/Kg	5	8/4/2012 3:47:03 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:12:50 PM
Chromium	12	1.5		mg/Kg	5	8/1/2012 3:12:50 PM
Cobalt	5.3	1.5		mg/Kg	5	8/4/2012 3:47:03 PM
Iron	15000	500		mg/Kg	500	8/5/2012 1:38:51 PM
Lead	2.6	1.2		mg/Kg	5	8/4/2012 3:47:03 PM
Manganese	300	10		mg/Kg	100	8/5/2012 1:36:26 PM
Nickel	8.7	2.5		mg/Kg	5	8/4/2012 3:47:03 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 3:47:03 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 3:12:50 PM
Vanadium	22	12		mg/Kg	5	8/1/2012 3:12:50 PM
Zinc	18	12		mg/Kg	5	8/4/2012 3:47:03 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Acenaphthylene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Aniline	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Anthracene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Azobenzene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Benzoic acid	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-12 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 12:12:00 PM
Lab ID: 1207940-007 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Carbazole	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	7/27/2012 7:18:12 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Chrysene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	7/27/2012 7:18:12 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Dibenzofuran	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	7/27/2012 7:18:12 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	7/27/2012 7:18:12 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	7/27/2012 7:18:12 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	7/27/2012 7:18:12 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
Fluoranthene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Fluorene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Hexachloroethane	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Isophorone	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
1-Methylnaphthalene	5.2	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
2-Methylnaphthalene	7.7	2.0		mg/Kg	5	7/30/2012 5:35:57 PM
2-Methylphenol	1.1	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
3+4-Methylphenol	2.2	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Naphthalene	1.6	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-007 **Matrix:** SOIL

Client Sample ID: SWMU 14-12 (1.5-2.0')
Collection Date: 7/19/2012 12:12:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
3-Nitroaniline	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	7/27/2012 7:18:12 PM
Nitrobenzene	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	7/27/2012 7:18:12 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	7/27/2012 7:18:12 PM
Phenanthrene	1.2	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Phenol	2.8	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Pyrene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Pyridine	ND	1.0		mg/Kg	1	7/27/2012 7:18:12 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	7/27/2012 7:18:12 PM
Surr: 2,4,6-Tribromophenol	62.6	20.1-121		%REC	1	7/27/2012 7:18:12 PM
Surr: 2-Fluorobiphenyl	56.3	19-133		%REC	1	7/27/2012 7:18:12 PM
Surr: 2-Fluorophenol	64.9	20.2-108		%REC	1	7/27/2012 7:18:12 PM
Surr: 4-Terphenyl-d14	69.9	18.9-115		%REC	1	7/27/2012 7:18:12 PM
Surr: Nitrobenzene-d5	74.1	20.8-123		%REC	1	7/27/2012 7:18:12 PM
Surr: Phenol-d5	78.4	19.8-115		%REC	1	7/27/2012 7:18:12 PM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	2.9	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Toluene	14	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Ethylbenzene	7.5	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Methyl tert-butyl ether (MTBE)	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,2,4-Trimethylbenzene	22	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,3,5-Trimethylbenzene	6.3	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,2-Dichloroethane (EDC)	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,2-Dibromoethane (EDB)	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Naphthalene	10	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
1-Methylnaphthalene	21	10		mg/Kg	50	7/24/2012 1:29:07 AM
2-Methylnaphthalene	36	10		mg/Kg	50	7/24/2012 1:29:07 AM
Acetone	47	38		mg/Kg	50	7/24/2012 1:29:07 AM
Bromobenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Bromodichloromethane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Bromoform	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Bromomethane	ND	7.5		mg/Kg	50	7/24/2012 1:29:07 AM
2-Butanone	ND	25		mg/Kg	50	7/24/2012 1:29:07 AM
Carbon disulfide	ND	25		mg/Kg	50	7/24/2012 1:29:07 AM
Carbon tetrachloride	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
Chlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Chloroethane	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-12 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 12:12:00 PM
Lab ID: 1207940-007 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Chloromethane	ND	7.5		mg/Kg	50	7/24/2012 1:29:07 AM
2-Chlorotoluene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
4-Chlorotoluene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
cis-1,2-DCE	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
cis-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,2-Dibromo-3-chloropropane	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
Dibromochloromethane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Dibromomethane	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
1,2-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,3-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,4-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Dichlorodifluoromethane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,1-Dichloroethane	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
1,1-Dichloroethene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,2-Dichloropropane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,3-Dichloropropane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
2,2-Dichloropropane	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
1,1-Dichloropropene	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
Hexachlorobutadiene	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
2-Hexanone	ND	25		mg/Kg	50	7/24/2012 1:29:07 AM
Isopropylbenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
4-Isopropyltoluene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
4-Methyl-2-pentanone	ND	25		mg/Kg	50	7/24/2012 1:29:07 AM
Methylene chloride	ND	7.5		mg/Kg	50	7/24/2012 1:29:07 AM
n-Butylbenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
n-Propylbenzene	3.6	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
sec-Butylbenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Styrene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
tert-Butylbenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,1,1,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,1,2,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Tetrachloroethene (PCE)	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
trans-1,2-DCE	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
trans-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,2,3-Trichlorobenzene	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
1,2,4-Trichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,1,1-Trichloroethane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,1,2-Trichloroethane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Trichloroethene (TCE)	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Trichlorofluoromethane	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
1,2,3-Trichloropropane	ND	5.0		mg/Kg	50	7/24/2012 1:29:07 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-12 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 12:12:00 PM
Lab ID: 1207940-007
Matrix: SOIL
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	2.5		mg/Kg	50	7/24/2012 1:29:07 AM
Xylenes, Total	36	5.0		mg/Kg	50	7/24/2012 1:29:07 AM
Surr: 1,2-Dichloroethane-d4	97.8	70-130		%REC	50	7/24/2012 1:29:07 AM
Surr: 4-Bromofluorobenzene	92.3	70-130		%REC	50	7/24/2012 1:29:07 AM
Surr: Dibromofluoromethane	103	70-130		%REC	50	7/24/2012 1:29:07 AM
Surr: Toluene-d8	98.4	70-130		%REC	50	7/24/2012 1:29:07 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-13 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 12:36:00 PM
Lab ID: 1207940-008 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	1000	99		mg/Kg	10	7/23/2012 7:41:16 AM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	7/23/2012 7:41:16 AM
Surr: DNOP	0	77.6-140	S	%REC	10	7/23/2012 7:41:16 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	7/30/2012 4:37:26 PM
Surr: BFB	129	84-116	S	%REC	10	7/30/2012 4:37:26 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.14	0.033		mg/Kg	1	8/2/2012 9:38:23 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:17:52 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 3:49:23 PM
Barium	350	10		mg/Kg	100	8/5/2012 1:41:23 PM
Beryllium	0.97	0.75		mg/Kg	5	8/4/2012 3:49:23 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:17:52 PM
Chromium	17	1.5		mg/Kg	5	8/1/2012 3:17:52 PM
Cobalt	5.7	1.5		mg/Kg	5	8/4/2012 3:49:23 PM
Iron	8400	500		mg/Kg	500	8/5/2012 1:43:37 PM
Lead	2.0	1.2		mg/Kg	5	8/4/2012 3:49:23 PM
Manganese	340	10		mg/Kg	100	8/5/2012 1:41:23 PM
Nickel	9.1	2.5		mg/Kg	5	8/4/2012 3:49:23 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 3:49:23 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 3:17:52 PM
Vanadium	26	12		mg/Kg	5	8/1/2012 3:17:52 PM
Zinc	36	12		mg/Kg	5	8/4/2012 3:49:23 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Acenaphthylene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Aniline	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Anthracene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Azobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Benzoic acid	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-008 **Matrix:** SOIL

Client Sample ID: SWMU 14-13 (0-0.5')
Collection Date: 7/19/2012 12:36:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Carbazole	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/30/2012 6:06:31 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Chrysene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	7/30/2012 6:06:31 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Dibenzofuran	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/30/2012 6:06:31 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/30/2012 6:06:31 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/30/2012 6:06:31 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/30/2012 6:06:31 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
Fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Fluorene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Hexachloroethane	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Isophorone	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
1-Methylnaphthalene	1.6	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
2-Methylnaphthalene	0.81	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
2-Methylphenol	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Naphthalene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM

Qualifiers:

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- H Holding times for preparation or analysis exceeded
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- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-13 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 12:36:00 PM
Lab ID: 1207940-008 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	7/30/2012 6:06:31 PM
Nitrobenzene	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	7/30/2012 6:06:31 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	7/30/2012 6:06:31 PM
Phenanthrene	1.4	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Phenol	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Pyrene	0.21	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Pyridine	ND	0.50		mg/Kg	1	7/30/2012 6:06:31 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/30/2012 6:06:31 PM
Surr: 2,4,6-Tribromophenol	57.8	20.1-121		%REC	1	7/30/2012 6:06:31 PM
Surr: 2-Fluorobiphenyl	58.6	19-133		%REC	1	7/30/2012 6:06:31 PM
Surr: 2-Fluorophenol	60.7	20.2-108		%REC	1	7/30/2012 6:06:31 PM
Surr: 4-Terphenyl-d14	79.7	18.9-115		%REC	1	7/30/2012 6:06:31 PM
Surr: Nitrobenzene-d5	68.2	20.8-123		%REC	1	7/30/2012 6:06:31 PM
Surr: Phenol-d5	75.4	19.8-115		%REC	1	7/30/2012 6:06:31 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Toluene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Ethylbenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2,4-Trimethylbenzene	3.7	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,3,5-Trimethylbenzene	1.4	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Naphthalene	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
1-Methylnaphthalene	12	4.0		mg/Kg	20	7/24/2012 3:22:12 AM
2-Methylnaphthalene	13	4.0		mg/Kg	20	7/24/2012 3:22:12 AM
Acetone	ND	15		mg/Kg	20	7/24/2012 3:22:12 AM
Bromobenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Bromoform	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Bromomethane	ND	3.0		mg/Kg	20	7/24/2012 3:22:12 AM
2-Butanone	ND	10		mg/Kg	20	7/24/2012 3:22:12 AM
Carbon disulfide	ND	10		mg/Kg	20	7/24/2012 3:22:12 AM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
Chlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Chloroethane	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-008 **Matrix:** SOIL

Client Sample ID: SWMU 14-13 (0-0.5')
Collection Date: 7/19/2012 12:36:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Chloromethane	ND	3.0		mg/Kg	20	7/24/2012 3:22:12 AM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Dibromomethane	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
2-Hexanone	ND	10		mg/Kg	20	7/24/2012 3:22:12 AM
Isopropylbenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
4-Isopropyltoluene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/24/2012 3:22:12 AM
Methylene chloride	ND	3.0		mg/Kg	20	7/24/2012 3:22:12 AM
n-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
n-Propylbenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
sec-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Styrene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,1,2-Trichloroethane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/24/2012 3:22:12 AM

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-13 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 12:36:00 PM
Lab ID: 1207940-008
Matrix: SOIL
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	1.0		mg/Kg	20	7/24/2012 3:22:12 AM
Xylenes, Total	2.4	2.0		mg/Kg	20	7/24/2012 3:22:12 AM
Surr: 1,2-Dichloroethane-d4	91.3	70-130		%REC	20	7/24/2012 3:22:12 AM
Surr: 4-Bromofluorobenzene	90.4	70-130		%REC	20	7/24/2012 3:22:12 AM
Surr: Dibromofluoromethane	101	70-130		%REC	20	7/24/2012 3:22:12 AM
Surr: Toluene-d8	102	70-130		%REC	20	7/24/2012 3:22:12 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-009 **Matrix:** SOIL

Client Sample ID: SWMU 14-13 (1.5-2.0')
Collection Date: 7/19/2012 12:45:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	1300	99		mg/Kg	10	7/22/2012 8:07:03 PM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	7/22/2012 8:07:03 PM
Surr: DNOP	0	77.6-140	S	%REC	10	7/22/2012 8:07:03 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	58	50		mg/Kg	10	7/30/2012 5:07:41 PM
Surr: BFB	122	84-116	S	%REC	10	7/30/2012 5:07:41 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 9:40:09 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:23:00 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 4:01:53 PM
Barium	230	0.50		mg/Kg	5	8/4/2012 4:01:53 PM
Beryllium	1.0	0.75		mg/Kg	5	8/4/2012 4:01:53 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:23:00 PM
Chromium	13	1.5		mg/Kg	5	8/1/2012 3:23:00 PM
Cobalt	5.7	1.5		mg/Kg	5	8/4/2012 4:01:53 PM
Iron	16000	500		mg/Kg	500	8/5/2012 1:48:51 PM
Lead	3.3	1.2		mg/Kg	5	8/4/2012 4:01:53 PM
Manganese	390	10		mg/Kg	100	8/5/2012 1:46:28 PM
Nickel	9.5	2.5		mg/Kg	5	8/4/2012 4:01:53 PM
Selenium	ND	12		mg/Kg	5	8/4/2012 4:01:53 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 3:23:00 PM
Vanadium	23	12		mg/Kg	5	8/1/2012 3:23:00 PM
Zinc	19	12		mg/Kg	5	8/4/2012 4:01:53 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Acenaphthylene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Aniline	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Anthracene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Azobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Benzoic acid	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-13 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 12:45:00 PM
Lab ID: 1207940-009 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Carbazole	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/30/2012 6:37:04 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Chrysene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	7/30/2012 6:37:04 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Dibenzofuran	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/30/2012 6:37:04 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/30/2012 6:37:04 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/30/2012 6:37:04 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/30/2012 6:37:04 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
Fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Fluorene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Hexachloroethane	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Isophorone	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
1-Methylnaphthalene	1.4	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
2-Methylnaphthalene	2.3	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
2-Methylphenol	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Naphthalene	0.65	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-009 **Matrix:** SOIL

Client Sample ID: SWMU 14-13 (1.5-2.0')
Collection Date: 7/19/2012 12:45:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	7/30/2012 6:37:04 PM
Nitrobenzene	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	7/30/2012 6:37:04 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	7/30/2012 6:37:04 PM
Phenanthrene	0.60	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Phenol	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Pyrene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Pyridine	ND	0.50		mg/Kg	1	7/30/2012 6:37:04 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/30/2012 6:37:04 PM
Surr: 2,4,6-Tribromophenol	92.0	20.1-121		%REC	1	7/30/2012 6:37:04 PM
Surr: 2-Fluorobiphenyl	80.4	19-133		%REC	1	7/30/2012 6:37:04 PM
Surr: 2-Fluorophenol	73.8	20.2-108		%REC	1	7/30/2012 6:37:04 PM
Surr: 4-Terphenyl-d14	92.5	18.9-115		%REC	1	7/30/2012 6:37:04 PM
Surr: Nitrobenzene-d5	78.1	20.8-123		%REC	1	7/30/2012 6:37:04 PM
Surr: Phenol-d5	92.9	19.8-115		%REC	1	7/30/2012 6:37:04 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Toluene	0.61	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Ethylbenzene	1.3	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,2,4-Trimethylbenzene	3.5	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,3,5-Trimethylbenzene	0.93	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Naphthalene	1.2	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
1-Methylnaphthalene	2.6	2.0		mg/Kg	10	7/24/2012 12:36:59 PM
2-Methylnaphthalene	4.6	2.0		mg/Kg	10	7/24/2012 12:36:59 PM
Acetone	ND	7.5		mg/Kg	10	7/24/2012 12:36:59 PM
Bromobenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Bromoform	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Bromomethane	ND	1.5		mg/Kg	10	7/24/2012 12:36:59 PM
2-Butanone	ND	5.0		mg/Kg	10	7/24/2012 12:36:59 PM
Carbon disulfide	ND	5.0		mg/Kg	10	7/24/2012 12:36:59 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
Chlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Chloroethane	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-009 **Matrix:** SOIL

Client Sample ID: SWMU 14-13 (1.5-2.0')
Collection Date: 7/19/2012 12:45:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Chloromethane	ND	1.5		mg/Kg	10	7/24/2012 12:36:59 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
Dibromochloromethane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Dibromomethane	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
2-Hexanone	ND	5.0		mg/Kg	10	7/24/2012 12:36:59 PM
Isopropylbenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	7/24/2012 12:36:59 PM
Methylene chloride	ND	1.5		mg/Kg	10	7/24/2012 12:36:59 PM
n-Butylbenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
n-Propylbenzene	0.55	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
sec-Butylbenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Styrene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	7/24/2012 12:36:59 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
RL	Reporting Detection Limit
U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-13 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 12:45:00 PM
Lab ID: 1207940-009 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	0.50		mg/Kg	10	7/24/2012 12:36:59 PM
Xylenes, Total	5.5	1.0		mg/Kg	10	7/24/2012 12:36:59 PM
Surr: 1,2-Dichloroethane-d4	97.7	70-130		%REC	10	7/24/2012 12:36:59 PM
Surr: 4-Bromofluorobenzene	83.2	70-130		%REC	10	7/24/2012 12:36:59 PM
Surr: Dibromofluoromethane	105	70-130		%REC	10	7/24/2012 12:36:59 PM
Surr: Toluene-d8	98.8	70-130		%REC	10	7/24/2012 12:36:59 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-14 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 1:07:00 PM
Lab ID: 1207940-010 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	7700	200		mg/Kg	20	7/23/2012 11:41:16 AM
Motor Oil Range Organics (MRO)	ND	980		mg/Kg	20	7/23/2012 11:41:16 AM
Surr: DNOP	0	77.6-140	S	%REC	20	7/23/2012 11:41:16 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	450	100		mg/Kg	20	7/30/2012 5:37:48 PM
Surr: BFB	143	84-116	S	%REC	20	7/30/2012 5:37:48 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.33	0.033		mg/Kg	1	8/2/2012 9:41:56 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:37:59 PM
Arsenic	ND	12		mg/Kg	5	8/1/2012 3:37:59 PM
Barium	980	10		mg/Kg	100	8/5/2012 1:51:24 PM
Beryllium	0.93	0.75		mg/Kg	5	8/4/2012 4:04:15 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:37:59 PM
Chromium	18	1.5		mg/Kg	5	8/1/2012 3:37:59 PM
Cobalt	5.7	1.5		mg/Kg	5	8/4/2012 4:04:15 PM
Iron	16000	500		mg/Kg	500	8/5/2012 1:55:14 PM
Lead	3.3	1.2		mg/Kg	5	8/4/2012 4:04:15 PM
Manganese	350	10		mg/Kg	100	8/5/2012 1:51:24 PM
Nickel	9.1	2.5		mg/Kg	5	8/4/2012 4:04:15 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 3:37:59 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:04:15 PM
Vanadium	27	12		mg/Kg	5	8/1/2012 3:37:59 PM
Zinc	34	12		mg/Kg	5	8/4/2012 4:04:15 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Aniline	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Anthracene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Azobenzene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-14 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 1:07:00 PM
Lab ID: 1207940-010 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Carbazole	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/30/2012 7:07:36 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Chrysene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/30/2012 7:07:36 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/30/2012 7:07:36 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 7:07:36 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/30/2012 7:07:36 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/30/2012 7:07:36 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Fluorene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Isophorone	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
1-Methylnaphthalene	18	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
2-Methylnaphthalene	28	5.0		mg/Kg	5	7/31/2012 1:08:09 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Naphthalene	3.7	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-010 **Matrix:** SOIL

Client Sample ID: SWMU 14-14 (0-0.5')
Collection Date: 7/19/2012 1:07:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 7:07:36 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/30/2012 7:07:36 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/30/2012 7:07:36 PM
Phenanthrene	6.6	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Phenol	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Pyrene	1.0	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Pyridine	ND	2.5		mg/Kg	1	7/30/2012 7:07:36 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 7:07:36 PM
Surr: 2,4,6-Tribromophenol	37.8	20.1-121		%REC	1	7/30/2012 7:07:36 PM
Surr: 2-Fluorobiphenyl	55.3	19-133		%REC	1	7/30/2012 7:07:36 PM
Surr: 2-Fluorophenol	38.2	20.2-108		%REC	1	7/30/2012 7:07:36 PM
Surr: 4-Terphenyl-d14	75.4	18.9-115		%REC	1	7/30/2012 7:07:36 PM
Surr: Nitrobenzene-d5	0	20.8-123	S	%REC	1	7/30/2012 7:07:36 PM
Surr: Phenol-d5	50.0	19.8-115		%REC	1	7/30/2012 7:07:36 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Toluene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Ethylbenzene	4.3	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Methyl tert-butyl ether (MTBE)	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,2,4-Trimethylbenzene	38	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,3,5-Trimethylbenzene	12	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,2-Dichloroethane (EDC)	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,2-Dibromoethane (EDB)	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Naphthalene	11	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
1-Methylnaphthalene	31	10		mg/Kg	50	7/24/2012 5:15:17 AM
2-Methylnaphthalene	55	10		mg/Kg	50	7/24/2012 5:15:17 AM
Acetone	ND	38		mg/Kg	50	7/24/2012 5:15:17 AM
Bromobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Bromodichloromethane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Bromoform	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Bromomethane	ND	7.5		mg/Kg	50	7/24/2012 5:15:17 AM
2-Butanone	ND	25		mg/Kg	50	7/24/2012 5:15:17 AM
Carbon disulfide	ND	25		mg/Kg	50	7/24/2012 5:15:17 AM
Carbon tetrachloride	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
Chlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Chloroethane	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-010 **Matrix:** SOIL

Client Sample ID: SWMU 14-14 (0-0.5')
Collection Date: 7/19/2012 1:07:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Chloromethane	ND	7.5		mg/Kg	50	7/24/2012 5:15:17 AM
2-Chlorotoluene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
4-Chlorotoluene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
cis-1,2-DCE	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
cis-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,2-Dibromo-3-chloropropane	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
Dibromochloromethane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Dibromomethane	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
1,2-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,3-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,4-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Dichlorodifluoromethane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,1-Dichloroethane	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
1,1-Dichloroethene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,2-Dichloropropane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,3-Dichloropropane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
2,2-Dichloropropane	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
1,1-Dichloropropene	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
Hexachlorobutadiene	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
2-Hexanone	ND	25		mg/Kg	50	7/24/2012 5:15:17 AM
Isopropylbenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
4-Isopropyltoluene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
4-Methyl-2-pentanone	ND	25		mg/Kg	50	7/24/2012 5:15:17 AM
Methylene chloride	ND	7.5		mg/Kg	50	7/24/2012 5:15:17 AM
n-Butylbenzene	3.3	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
n-Propylbenzene	4.0	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
sec-Butylbenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Styrene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
tert-Butylbenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,1,1,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,1,2,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Tetrachloroethene (PCE)	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
trans-1,2-DCE	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
trans-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,2,3-Trichlorobenzene	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
1,2,4-Trichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,1,1-Trichloroethane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,1,2-Trichloroethane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Trichloroethene (TCE)	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Trichlorofluoromethane	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
1,2,3-Trichloropropane	ND	5.0		mg/Kg	50	7/24/2012 5:15:17 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-14 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 1:07:00 PM
Lab ID: 1207940-010 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	2.5		mg/Kg	50	7/24/2012 5:15:17 AM
Xylenes, Total	45	5.0		mg/Kg	50	7/24/2012 5:15:17 AM
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	50	7/24/2012 5:15:17 AM
Surr: 4-Bromofluorobenzene	76.0	70-130		%REC	50	7/24/2012 5:15:17 AM
Surr: Dibromofluoromethane	109	70-130		%REC	50	7/24/2012 5:15:17 AM
Surr: Toluene-d8	102	70-130		%REC	50	7/24/2012 5:15:17 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-011 **Matrix:** SOIL

Client Sample ID: SWMU 14-14 (1.5-2.0')
Collection Date: 7/19/2012 1:12:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	2800	99		mg/Kg	10	7/22/2012 9:34:51 PM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	7/22/2012 9:34:51 PM
Surr: DNOP	0	77.6-140	S	%REC	10	7/22/2012 9:34:51 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	7/30/2012 6:07:52 PM
Surr: BFB	96.8	84-116		%REC	20	7/30/2012 6:07:52 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 9:43:43 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:42:54 PM
Arsenic	ND	12		mg/Kg	5	8/1/2012 3:42:54 PM
Barium	190	0.50		mg/Kg	5	8/4/2012 4:06:36 PM
Beryllium	1.0	0.75		mg/kg	5	8/15/2012 8:29:04 AM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:42:54 PM
Chromium	11	1.5		mg/Kg	5	8/1/2012 3:42:54 PM
Cobalt	4.9	1.5		mg/Kg	5	8/4/2012 4:06:36 PM
Iron	14000	500		mg/Kg	500	8/5/2012 1:57:49 PM
Lead	2.9	1.2		mg/Kg	5	8/4/2012 4:06:36 PM
Manganese	240	0.50		mg/Kg	5	8/4/2012 4:06:36 PM
Nickel	8.1	2.5		mg/Kg	5	8/4/2012 4:06:36 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 3:42:54 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:06:36 PM
Vanadium	21	12		mg/Kg	5	8/1/2012 3:42:54 PM
Zinc	19	12		mg/Kg	5	8/4/2012 4:06:36 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Acenaphthylene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Aniline	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Anthracene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Azobenzene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Benz(a)anthracene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Benzo(a)pyrene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Benzo(b)fluoranthene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Benzo(g,h,i)perylene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Benzo(k)fluoranthene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
Benzyl alcohol	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Bis(2-chloroethoxy)methane	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Bis(2-chloroethyl)ether	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Bis(2-chloroisopropyl)ether	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM

Qualifiers:

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-011 **Matrix:** SOIL

Client Sample ID: SWMU 14-14 (1.5-2.0')
Collection Date: 7/19/2012 1:12:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
4-Bromophenyl phenyl ether	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Butyl benzyl phthalate	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Carbazole	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/30/2012 7:38:08 PM
2-Chlorophenol	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
4-Chlorophenyl phenyl ether	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Chrysene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/30/2012 7:38:08 PM
Dibenz(a,h)anthracene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Dibenzofuran	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
1,2-Dichlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
1,3-Dichlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
1,4-Dichlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/30/2012 7:38:08 PM
Diethyl phthalate	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Dimethyl phthalate	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 7:38:08 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/30/2012 7:38:08 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/30/2012 7:38:08 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
Fluoranthene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Fluorene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Hexachlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Hexachlorobutadiene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Hexachlorocyclopentadiene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Hexachloroethane	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Indeno(1,2,3-cd)pyrene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Isophorone	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
1-Methylnaphthalene	17	5.0		mg/Kg	5	7/31/2012 1:38:27 PM
2-Methylnaphthalene	27	5.0		mg/Kg	5	7/31/2012 1:38:27 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
3+4-Methylphenol	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
N-Nitrosodi-n-propylamine	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
N-Nitrosodiphenylamine	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Naphthalene	4.3	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
2-Nitroaniline	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-011 **Matrix:** SOIL

Client Sample ID: SWMU 14-14 (1.5-2.0')
Collection Date: 7/19/2012 1:12:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 7:38:08 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
2-Nitrophenol	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/30/2012 7:38:08 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/30/2012 7:38:08 PM
Phenanthrene	6.2	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Phenol	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Pyrene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Pyridine	ND	2.5		mg/Kg	1	7/30/2012 7:38:08 PM
1,2,4-Trichlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
2,4,5-Trichlorophenol	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
2,4,6-Trichlorophenol	ND	0.99		mg/Kg	1	7/30/2012 7:38:08 PM
Surr: 2,4,6-Tribromophenol	91.6	20.1-121		%REC	1	7/30/2012 7:38:08 PM
Surr: 2-Fluorobiphenyl	99.9	19-133		%REC	1	7/30/2012 7:38:08 PM
Surr: 2-Fluorophenol	105	20.2-108		%REC	1	7/30/2012 7:38:08 PM
Surr: 4-Terphenyl-d14	120	18.9-115	S	%REC	1	7/30/2012 7:38:08 PM
Surr: Nitrobenzene-d5	0	20.8-123	S	%REC	1	7/30/2012 7:38:08 PM
Surr: Phenol-d5	122	19.8-115	S	%REC	1	7/30/2012 7:38:08 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	0.84	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Toluene	0.83	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Ethylbenzene	1.7	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,2,4-Trimethylbenzene	4.8	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,3,5-Trimethylbenzene	0.87	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Naphthalene	1.4	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
1-Methylnaphthalene	3.3	2.0		mg/Kg	10	7/24/2012 1:33:50 PM
2-Methylnaphthalene	6.1	2.0		mg/Kg	10	7/24/2012 1:33:50 PM
Acetone	ND	7.5		mg/Kg	10	7/24/2012 1:33:50 PM
Bromobenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Bromoform	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Bromomethane	ND	1.5		mg/Kg	10	7/24/2012 1:33:50 PM
2-Butanone	ND	5.0		mg/Kg	10	7/24/2012 1:33:50 PM
Carbon disulfide	ND	5.0		mg/Kg	10	7/24/2012 1:33:50 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
Chlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Chloroethane	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-14 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 1:12:00 PM
Lab ID: 1207940-011
Matrix: SOIL
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Chloromethane	ND	1.5		mg/Kg	10	7/24/2012 1:33:50 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
Dibromochloromethane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Dibromomethane	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
2-Hexanone	ND	5.0		mg/Kg	10	7/24/2012 1:33:50 PM
Isopropylbenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	7/24/2012 1:33:50 PM
Methylene chloride	ND	1.5		mg/Kg	10	7/24/2012 1:33:50 PM
n-Butylbenzene	0.51	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
n-Propylbenzene	0.73	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
sec-Butylbenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Styrene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	7/24/2012 1:33:50 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-011 **Matrix:** SOIL

Client Sample ID: SWMU 14-14 (1.5-2.0')
Collection Date: 7/19/2012 1:12:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	0.50		mg/Kg	10	7/24/2012 1:33:50 PM
Xylenes, Total	5.3	1.0		mg/Kg	10	7/24/2012 1:33:50 PM
Surr: 1,2-Dichloroethane-d4	95.0	70-130		%REC	10	7/24/2012 1:33:50 PM
Surr: 4-Bromofluorobenzene	81.7	70-130		%REC	10	7/24/2012 1:33:50 PM
Surr: Dibromofluoromethane	110	70-130		%REC	10	7/24/2012 1:33:50 PM
Surr: Toluene-d8	103	70-130		%REC	10	7/24/2012 1:33:50 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-012 **Matrix:** SOIL

Client Sample ID: SWMU 14-11 (0-0.5')
Collection Date: 7/19/2012 1:33:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	350	9.7		mg/Kg	1	7/23/2012 1:01:37 PM
Motor Oil Range Organics (MRO)	150	48		mg/Kg	1	7/23/2012 1:01:37 PM
Surr: DNOP	108	77.6-140		%REC	1	7/23/2012 1:01:37 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	7/30/2012 6:38:08 PM
Surr: BFB	105	84-116		%REC	5	7/30/2012 6:38:08 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.14	0.033		mg/Kg	1	8/2/2012 9:45:29 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:48:04 PM
Arsenic	ND	12		mg/Kg	5	8/1/2012 3:48:04 PM
Barium	590	2.0		mg/Kg	20	8/5/2012 2:00:21 PM
Beryllium	0.83	0.75		mg/kg	5	8/15/2012 8:33:02 AM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:48:04 PM
Chromium	21	1.5		mg/Kg	5	8/1/2012 3:48:04 PM
Cobalt	5.4	1.5		mg/Kg	5	8/4/2012 4:09:00 PM
Iron	14000	500		mg/Kg	500	8/5/2012 2:10:31 PM
Lead	7.0	1.2		mg/Kg	5	8/4/2012 4:09:00 PM
Manganese	550	2.0		mg/Kg	20	8/5/2012 2:00:21 PM
Nickel	9.7	2.5		mg/Kg	5	8/4/2012 4:09:00 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 3:48:04 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:09:00 PM
Vanadium	25	12		mg/Kg	5	8/1/2012 3:48:04 PM
Zinc	59	12		mg/Kg	5	8/4/2012 4:09:00 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Aniline	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Anthracene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Azobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-012 **Matrix:** SOIL

Client Sample ID: SWMU 14-11 (0-0.5')
Collection Date: 7/19/2012 1:33:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Carbazole	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/30/2012 8:08:37 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Chrysene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/30/2012 8:08:37 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/30/2012 8:08:37 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 8:08:37 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/30/2012 8:08:37 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/30/2012 8:08:37 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Fluorene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Isophorone	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Naphthalene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-11 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 1:33:00 PM
Lab ID: 1207940-012 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 8:08:37 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/30/2012 8:08:37 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/30/2012 8:08:37 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Phenol	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Pyrene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Pyridine	ND	2.5		mg/Kg	1	7/30/2012 8:08:37 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 8:08:37 PM
Surr: 2,4,6-Tribromophenol	95.1	20.1-121		%REC	1	7/30/2012 8:08:37 PM
Surr: 2-Fluorobiphenyl	89.2	19-133		%REC	1	7/30/2012 8:08:37 PM
Surr: 2-Fluorophenol	80.1	20.2-108		%REC	1	7/30/2012 8:08:37 PM
Surr: 4-Terphenyl-d14	108	18.9-115		%REC	1	7/30/2012 8:08:37 PM
Surr: Nitrobenzene-d5	97.0	20.8-123		%REC	1	7/30/2012 8:08:37 PM
Surr: Phenol-d5	84.8	19.8-115		%REC	1	7/30/2012 8:08:37 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Toluene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Ethylbenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Xylenes, Total	ND	2.93		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Methyl tert-butyl ether (MTBE)	ND	1.95		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2,4-Trimethylbenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,3,5-Trimethylbenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2-Dichloroethane (EDC)	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2-Dibromoethane (EDB)	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Naphthalene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1-Methylnaphthalene	ND	3.90		µg/Kg-dry	1	7/26/2012 9:21:01 PM
2-Methylnaphthalene	ND	3.90		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Acetone	ND	29.3		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Bromobenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Bromodichloromethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Bromoform	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
2-Butanone	ND	4.88		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Carbon tetrachloride	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Chlorobenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Chloroethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Chloroform	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-012 **Matrix:** SOIL

Client Sample ID: SWMU 14-11 (0-0.5')
Collection Date: 7/19/2012 1:33:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
2-Chlorotoluene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Carbon disulfide	ND	4.88		µg/Kg-dry	1	7/26/2012 9:21:01 PM
4-Chlorotoluene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
cis-1,2-DCE	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
cis-1,3-Dichloropropene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2-Dibromo-3-chloropropane	ND	1.95		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Dibromochloromethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Dibromomethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2-Dichlorobenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,3-Dichlorobenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,4-Dichlorobenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Dichlorodifluoromethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,1-Dichloroethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,1-Dichloroethene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2-Dichloropropane	ND	1.95		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,3-Dichloropropane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
2,2-Dichloropropane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,1-Dichloropropene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Hexachlorobutadiene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Isopropylbenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
4-Isopropyltoluene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Methylene chloride	ND	4.88		µg/Kg-dry	1	7/26/2012 9:21:01 PM
n-Butylbenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
2-Hexanone	ND	4.88		µg/Kg-dry	1	7/26/2012 9:21:01 PM
n-Propylbenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
sec-Butylbenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Styrene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
4-Methyl-2-pentanone	ND	4.88		µg/Kg-dry	1	7/26/2012 9:21:01 PM
tert-Butylbenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,1,1,2-Tetrachloroethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,1,2,2-Tetrachloroethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Tetrachloroethene (PCE)	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
trans-1,2-DCE	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
trans-1,3-Dichloropropene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2,3-Trichlorobenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2,4-Trichlorobenzene	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,1,1-Trichloroethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,1,2-Trichloroethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Trichloroethene (TCE)	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Trichlorofluoromethane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
1,2,3-Trichloropropane	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-11 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 1:33:00 PM
Lab ID: 1207940-012 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.976		µg/Kg-dry	1	7/26/2012 9:21:01 PM
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%REC	1	7/26/2012 9:21:01 PM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	1	7/26/2012 9:21:01 PM
Surr: Dibromofluoromethane	86.3	70-130		%REC	1	7/26/2012 9:21:01 PM
Surr: Toluene-d8	93.5	70-130		%REC	1	7/26/2012 9:21:01 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-013 **Matrix:** SOIL

Client Sample ID: SWMU 14-11 (1.5-2.0')
Collection Date: 7/19/2012 1:38:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	350	10		mg/Kg	1	7/23/2012 1:27:14 PM
Motor Oil Range Organics (MRO)	80	51		mg/Kg	1	7/23/2012 1:27:14 PM
Surr: DNOP	112	77.6-140		%REC	1	7/23/2012 1:27:14 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	27	25		mg/Kg	5	7/30/2012 7:08:15 PM
Surr: BFB	130	84-116	S	%REC	5	7/30/2012 7:08:15 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.058	0.033		mg/Kg	1	8/2/2012 9:50:48 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:53:08 PM
Arsenic	ND	12		mg/Kg	5	8/1/2012 3:53:08 PM
Barium	620	2.0		mg/Kg	20	8/5/2012 2:13:07 PM
Beryllium	0.84	0.75		mg/kg	5	8/15/2012 8:36:01 AM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:53:08 PM
Chromium	17	1.5		mg/Kg	5	8/1/2012 3:53:08 PM
Cobalt	4.9	1.5		mg/Kg	5	8/4/2012 4:11:21 PM
Iron	15000	500		mg/Kg	500	8/5/2012 2:15:18 PM
Lead	5.8	1.2		mg/Kg	5	8/4/2012 4:11:21 PM
Manganese	700	2.0		mg/Kg	20	8/5/2012 2:13:07 PM
Nickel	7.9	2.5		mg/Kg	5	8/4/2012 4:11:21 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 3:53:08 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:11:21 PM
Vanadium	24	12		mg/Kg	5	8/1/2012 3:53:08 PM
Zinc	38	12		mg/Kg	5	8/4/2012 4:11:21 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Aniline	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Anthracene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Azobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM

Qualifiers:

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- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-11 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 1:38:00 PM
Lab ID: 1207940-013 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Carbazole	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/30/2012 8:39:02 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Chrysene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/30/2012 8:39:02 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/30/2012 8:39:02 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 8:39:02 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/30/2012 8:39:02 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/30/2012 8:39:02 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Fluorene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Isophorone	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Naphthalene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-11 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 1:38:00 PM
Lab ID: 1207940-013 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 8:39:02 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/30/2012 8:39:02 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/30/2012 8:39:02 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Phenol	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Pyrene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Pyridine	ND	2.5		mg/Kg	1	7/30/2012 8:39:02 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 8:39:02 PM
Surr: 2,4,6-Tribromophenol	95.2	20.1-121		%REC	1	7/30/2012 8:39:02 PM
Surr: 2-Fluorobiphenyl	92.3	19-133		%REC	1	7/30/2012 8:39:02 PM
Surr: 2-Fluorophenol	87.8	20.2-108		%REC	1	7/30/2012 8:39:02 PM
Surr: 4-Terphenyl-d14	106	18.9-115		%REC	1	7/30/2012 8:39:02 PM
Surr: Nitrobenzene-d5	99.5	20.8-123		%REC	1	7/30/2012 8:39:02 PM
Surr: Phenol-d5	86.6	19.8-115		%REC	1	7/30/2012 8:39:02 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Toluene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Ethylbenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Xylenes, Total	ND	3.75		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Methyl tert-butyl ether (MTBE)	ND	2.50		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2,4-Trimethylbenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,3,5-Trimethylbenzene	7.26	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2-Dichloroethane (EDC)	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2-Dibromoethane (EDB)	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Naphthalene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1-Methylnaphthalene	15.2	5.00		µg/Kg-dry	1	7/26/2012 9:48:36 PM
2-Methylnaphthalene	ND	5.00		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Acetone	ND	37.5		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Bromobenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Bromodichloromethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Bromoform	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
2-Butanone	ND	6.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Carbon tetrachloride	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Chlorobenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Chloroethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Chloroform	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-013 **Matrix:** SOIL

Client Sample ID: SWMU 14-11 (1.5-2.0')
Collection Date: 7/19/2012 1:38:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
2-Chlorotoluene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Carbon disulfide	ND	6.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
4-Chlorotoluene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
cis-1,2-DCE	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
cis-1,3-Dichloropropene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2-Dibromo-3-chloropropane	ND	2.50		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Dibromochloromethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Dibromomethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2-Dichlorobenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,3-Dichlorobenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,4-Dichlorobenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Dichlorodifluoromethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,1-Dichloroethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,1-Dichloroethene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2-Dichloropropane	ND	2.50		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,3-Dichloropropane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
2,2-Dichloropropane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,1-Dichloropropene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Hexachlorobutadiene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Isopropylbenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
4-Isopropyltoluene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Methylene chloride	ND	6.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
n-Butylbenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
2-Hexanone	ND	6.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
n-Propylbenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
sec-Butylbenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Styrene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
4-Methyl-2-pentanone	ND	6.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
tert-Butylbenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,1,1,2-Tetrachloroethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,1,2,2-Tetrachloroethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Tetrachloroethene (PCE)	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
trans-1,2-DCE	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
trans-1,3-Dichloropropene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2,3-Trichlorobenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2,4-Trichlorobenzene	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,1,1-Trichloroethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,1,2-Trichloroethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Trichloroethene (TCE)	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Trichlorofluoromethane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
1,2,3-Trichloropropane	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-013 **Matrix:** SOIL

Client Sample ID: SWMU 14-11 (1.5-2.0')
Collection Date: 7/19/2012 1:38:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	1.25		µg/Kg-dry	1	7/26/2012 9:48:36 PM
Surr: 1,2-Dichloroethane-d4	187	70-130	S	%REC	1	7/26/2012 9:48:36 PM
Surr: 4-Bromofluorobenzene	154	70-130	S	%REC	1	7/26/2012 9:48:36 PM
Surr: Dibromofluoromethane	87.3	70-130		%REC	1	7/26/2012 9:48:36 PM
Surr: Toluene-d8	99.6	70-130		%REC	1	7/26/2012 9:48:36 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-014 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (0-0.5')
Collection Date: 7/19/2012 2:08:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	1200	96		mg/Kg	10	7/23/2012 3:37:11 PM
Motor Oil Range Organics (MRO)	680	480		mg/Kg	10	7/23/2012 3:37:11 PM
Surr: DNOP	0	77.6-140	S	%REC	10	7/23/2012 3:37:11 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	7/30/2012 7:38:29 PM
Surr: BFB	108	84-116		%REC	10	7/30/2012 7:38:29 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.20	0.033		mg/Kg	1	8/2/2012 9:52:34 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 3:58:16 PM
Arsenic	ND	12		mg/Kg	5	8/1/2012 3:58:16 PM
Barium	620	2.0		mg/Kg	20	8/5/2012 2:17:56 PM
Beryllium	0.86	0.75		mg/kg	5	8/15/2012 8:38:55 AM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 3:58:16 PM
Chromium	25	1.5		mg/Kg	5	8/1/2012 3:58:16 PM
Cobalt	5.2	1.5		mg/Kg	5	8/4/2012 4:13:45 PM
Iron	16000	500		mg/Kg	500	8/5/2012 2:20:11 PM
Lead	10	1.2		mg/Kg	5	8/4/2012 4:13:45 PM
Manganese	580	2.0		mg/Kg	20	8/5/2012 2:17:56 PM
Nickel	8.5	2.5		mg/Kg	5	8/4/2012 4:13:45 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 3:58:16 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:13:45 PM
Vanadium	30	12		mg/Kg	5	8/1/2012 3:58:16 PM
Zinc	68	12		mg/Kg	5	8/4/2012 4:13:45 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Acenaphthylene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Aniline	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Anthracene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Azobenzene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Benz(a)anthracene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Benzo(a)pyrene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Benzo(b)fluoranthene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Benzo(g,h,i)perylene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Benzo(k)fluoranthene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
Benzyl alcohol	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Bis(2-chloroethoxy)methane	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Bis(2-chloroethyl)ether	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Bis(2-chloroisopropyl)ether	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-014 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (0-0.5')
Collection Date: 7/19/2012 2:08:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
4-Bromophenyl phenyl ether	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Butyl benzyl phthalate	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Carbazole	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/30/2012 9:09:24 PM
2-Chlorophenol	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
4-Chlorophenyl phenyl ether	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Chrysene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/30/2012 9:09:24 PM
Dibenz(a,h)anthracene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Dibenzofuran	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
1,2-Dichlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
1,3-Dichlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
1,4-Dichlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
3,3´-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/30/2012 9:09:24 PM
Diethyl phthalate	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Dimethyl phthalate	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 9:09:24 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/30/2012 9:09:24 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/30/2012 9:09:24 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
Fluoranthene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Fluorene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Hexachlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Hexachlorobutadiene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Hexachlorocyclopentadiene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Hexachloroethane	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Indeno(1,2,3-cd)pyrene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Isophorone	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
1-Methylnaphthalene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
2-Methylnaphthalene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
3+4-Methylphenol	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
N-Nitrosodi-n-propylamine	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
N-Nitrosodiphenylamine	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Naphthalene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
2-Nitroaniline	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-014 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (0-0.5')
Collection Date: 7/19/2012 2:08:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 9:09:24 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
2-Nitrophenol	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/30/2012 9:09:24 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/30/2012 9:09:24 PM
Phenanthrene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Phenol	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Pyrene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Pyridine	ND	2.5		mg/Kg	1	7/30/2012 9:09:24 PM
1,2,4-Trichlorobenzene	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
2,4,5-Trichlorophenol	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
2,4,6-Trichlorophenol	ND	0.99		mg/Kg	1	7/30/2012 9:09:24 PM
Surr: 2,4,6-Tribromophenol	90.2	20.1-121		%REC	1	7/30/2012 9:09:24 PM
Surr: 2-Fluorobiphenyl	82.9	19-133		%REC	1	7/30/2012 9:09:24 PM
Surr: 2-Fluorophenol	75.6	20.2-108		%REC	1	7/30/2012 9:09:24 PM
Surr: 4-Terphenyl-d14	97.7	18.9-115		%REC	1	7/30/2012 9:09:24 PM
Surr: Nitrobenzene-d5	84.3	20.8-123		%REC	1	7/30/2012 9:09:24 PM
Surr: Phenol-d5	80.1	19.8-115		%REC	1	7/30/2012 9:09:24 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Toluene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Ethylbenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Xylenes, Total	ND	3.27		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Methyl tert-butyl ether (MTBE)	ND	2.18		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2,4-Trimethylbenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,3,5-Trimethylbenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2-Dichloroethane (EDC)	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2-Dibromoethane (EDB)	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Naphthalene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1-Methylnaphthalene	ND	4.36		µg/Kg-dry	1	7/26/2012 10:43:57 PM
2-Methylnaphthalene	ND	4.36		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Acetone	ND	32.7		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Bromobenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Bromodichloromethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Bromoform	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
2-Butanone	ND	5.45		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Carbon tetrachloride	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Chlorobenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Chloroethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Chloroform	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-014 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (0-0.5')
Collection Date: 7/19/2012 2:08:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
2-Chlorotoluene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Carbon disulfide	ND	5.45		µg/Kg-dry	1	7/26/2012 10:43:57 PM
4-Chlorotoluene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
cis-1,2-DCE	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
cis-1,3-Dichloropropene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2-Dibromo-3-chloropropane	ND	2.18		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Dibromochloromethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Dibromomethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2-Dichlorobenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,3-Dichlorobenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,4-Dichlorobenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Dichlorodifluoromethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,1-Dichloroethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,1-Dichloroethene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2-Dichloropropane	ND	2.18		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,3-Dichloropropane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
2,2-Dichloropropane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,1-Dichloropropene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Hexachlorobutadiene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Isopropylbenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
4-Isopropyltoluene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Methylene chloride	ND	5.45		µg/Kg-dry	1	7/26/2012 10:43:57 PM
n-Butylbenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
2-Hexanone	ND	5.45		µg/Kg-dry	1	7/26/2012 10:43:57 PM
n-Propylbenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
sec-Butylbenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Styrene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
4-Methyl-2-pentanone	ND	5.45		µg/Kg-dry	1	7/26/2012 10:43:57 PM
tert-Butylbenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,1,1,2-Tetrachloroethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,1,2,2-Tetrachloroethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Tetrachloroethene (PCE)	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
trans-1,2-DCE	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
trans-1,3-Dichloropropene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2,3-Trichlorobenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2,4-Trichlorobenzene	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,1,1-Trichloroethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,1,2-Trichloroethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Trichloroethene (TCE)	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Trichlorofluoromethane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
1,2,3-Trichloropropane	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-18 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 2:08:00 PM
Lab ID: 1207940-014 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	1.09		µg/Kg-dry	1	7/26/2012 10:43:57 PM
Surr: 1,2-Dichloroethane-d4	180	70-130	S	%REC	1	7/26/2012 10:43:57 PM
Surr: 4-Bromofluorobenzene	96.7	70-130		%REC	1	7/26/2012 10:43:57 PM
Surr: Dibromofluoromethane	79.8	70-130		%REC	1	7/26/2012 10:43:57 PM
Surr: Toluene-d8	91.8	70-130		%REC	1	7/26/2012 10:43:57 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-18 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 2:15:00 PM
Lab ID: 1207940-015
Matrix: SOIL
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	14000	510		mg/Kg	50	7/23/2012 2:15:26 PM
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	7/23/2012 2:15:26 PM
Surr: DNOP	0	77.6-140	S	%REC	50	7/23/2012 2:15:26 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	570	500		mg/Kg	100	7/30/2012 8:08:47 PM
Surr: BFB	119	84-116	S	%REC	100	7/30/2012 8:08:47 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.15	0.033		mg/Kg	1	8/2/2012 9:54:21 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 4:15:18 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 4:16:06 PM
Barium	680	2.0		mg/Kg	20	8/5/2012 2:22:47 PM
Beryllium	0.76	0.75		mg/Kg	5	8/4/2012 4:16:06 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 4:15:18 PM
Chromium	26	1.5		mg/Kg	5	8/1/2012 4:15:18 PM
Cobalt	5.5	1.5		mg/Kg	5	8/4/2012 4:16:06 PM
Iron	15000	500		mg/Kg	500	8/5/2012 2:24:54 PM
Lead	14	1.2		mg/Kg	5	8/4/2012 4:16:06 PM
Manganese	540	2.0		mg/Kg	20	8/5/2012 2:22:47 PM
Nickel	8.9	2.5		mg/Kg	5	8/4/2012 4:16:06 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 4:15:18 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:16:06 PM
Vanadium	26	12		mg/Kg	5	8/1/2012 4:15:18 PM
Zinc	65	12		mg/Kg	5	8/4/2012 4:16:06 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Acenaphthylene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Aniline	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Anthracene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Azobenzene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Benz(a)anthracene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Benzoic acid	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
Benzyl alcohol	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM

Qualifiers:

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- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-015 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (1.5-2.0')
Collection Date: 7/19/2012 2:15:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Carbazole	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
4-Chloro-3-methylphenol	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
4-Chloroaniline	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	7/30/2012 9:39:42 PM
2-Chlorophenol	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Chrysene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Di-n-butyl phthalate	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
Di-n-octyl phthalate	ND	2.5		mg/Kg	1	7/30/2012 9:39:42 PM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Dibenzofuran	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
3,3'-Dichlorobenzidine	ND	2.5		mg/Kg	1	7/30/2012 9:39:42 PM
Diethyl phthalate	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Dimethyl phthalate	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	7/30/2012 9:39:42 PM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	7/30/2012 9:39:42 PM
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	7/30/2012 9:39:42 PM
2,4-Dinitrotoluene	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
2,6-Dinitrotoluene	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
Fluoranthene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Fluorene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Hexachlorobenzene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Hexachloroethane	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Isophorone	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
1-Methylnaphthalene	4.5	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
2-Methylnaphthalene	7.0	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
2-Methylphenol	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
3+4-Methylphenol	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Naphthalene	2.8	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
2-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-015 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (1.5-2.0')
Collection Date: 7/19/2012 2:15:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
3-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
4-Nitroaniline	ND	4.0		mg/Kg	1	7/30/2012 9:39:42 PM
Nitrobenzene	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
2-Nitrophenol	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
4-Nitrophenol	ND	2.5		mg/Kg	1	7/30/2012 9:39:42 PM
Pentachlorophenol	ND	4.0		mg/Kg	1	7/30/2012 9:39:42 PM
Phenanthrene	2.2	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Phenol	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Pyrene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Pyridine	ND	5.0		mg/Kg	1	7/30/2012 9:39:42 PM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 9:39:42 PM
Surr: 2,4,6-Tribromophenol	0	20.1-121	S	%REC	1	7/30/2012 9:39:42 PM
Surr: 2-Fluorobiphenyl	48.1	19-133		%REC	1	7/30/2012 9:39:42 PM
Surr: 2-Fluorophenol	28.9	20.2-108		%REC	1	7/30/2012 9:39:42 PM
Surr: 4-Terphenyl-d14	50.7	18.9-115		%REC	1	7/30/2012 9:39:42 PM
Surr: Nitrobenzene-d5	0	20.8-123	S	%REC	1	7/30/2012 9:39:42 PM
Surr: Phenol-d5	33.1	19.8-115		%REC	1	7/30/2012 9:39:42 PM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Toluene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Ethylbenzene	17	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Methyl tert-butyl ether (MTBE)	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,2,4-Trimethylbenzene	37	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,3,5-Trimethylbenzene	13	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,2-Dichloroethane (EDC)	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,2-Dibromoethane (EDB)	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Naphthalene	8.8	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
1-Methylnaphthalene	12	10		mg/Kg	50	7/24/2012 7:08:15 AM
2-Methylnaphthalene	20	10		mg/Kg	50	7/24/2012 7:08:15 AM
Acetone	ND	38		mg/Kg	50	7/24/2012 7:08:15 AM
Bromobenzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Bromodichloromethane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Bromoform	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Bromomethane	ND	7.5		mg/Kg	50	7/24/2012 7:08:15 AM
2-Butanone	ND	25		mg/Kg	50	7/24/2012 7:08:15 AM
Carbon disulfide	ND	25		mg/Kg	50	7/24/2012 7:08:15 AM
Carbon tetrachloride	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
Chlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Chloroethane	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-015 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (1.5-2.0')
Collection Date: 7/19/2012 2:15:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Chloromethane	ND	7.5		mg/Kg	50	7/24/2012 7:08:15 AM
2-Chlorotoluene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
4-Chlorotoluene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
cis-1,2-DCE	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
cis-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,2-Dibromo-3-chloropropane	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
Dibromochloromethane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Dibromomethane	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
1,2-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,3-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,4-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Dichlorodifluoromethane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,1-Dichloroethane	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
1,1-Dichloroethene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,2-Dichloropropane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,3-Dichloropropane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
2,2-Dichloropropane	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
1,1-Dichloropropene	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
Hexachlorobutadiene	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
2-Hexanone	ND	25		mg/Kg	50	7/24/2012 7:08:15 AM
Isopropylbenzene	3.5	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
4-Isopropyltoluene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
4-Methyl-2-pentanone	ND	25		mg/Kg	50	7/24/2012 7:08:15 AM
Methylene chloride	ND	7.5		mg/Kg	50	7/24/2012 7:08:15 AM
n-Butylbenzene	2.8	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
n-Propylbenzene	5.7	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
sec-Butylbenzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Styrene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
tert-Butylbenzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,1,1,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,1,2,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Tetrachloroethene (PCE)	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
trans-1,2-DCE	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
trans-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,2,3-Trichlorobenzene	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
1,2,4-Trichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,1,1-Trichloroethane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,1,2-Trichloroethane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Trichloroethene (TCE)	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Trichlorofluoromethane	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
1,2,3-Trichloropropane	ND	5.0		mg/Kg	50	7/24/2012 7:08:15 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-015 **Matrix:** SOIL

Client Sample ID: SWMU 14-18 (1.5-2.0')
Collection Date: 7/19/2012 2:15:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	2.5		mg/Kg	50	7/24/2012 7:08:15 AM
Xylenes, Total	53	5.0		mg/Kg	50	7/24/2012 7:08:15 AM
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%REC	50	7/24/2012 7:08:15 AM
Surr: 4-Bromofluorobenzene	86.1	70-130		%REC	50	7/24/2012 7:08:15 AM
Surr: Dibromofluoromethane	108	70-130		%REC	50	7/24/2012 7:08:15 AM
Surr: Toluene-d8	104	70-130		%REC	50	7/24/2012 7:08:15 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-5 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 3:00:00 PM
Lab ID: 1207940-016 **Matrix:** SOIL
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	300	10		mg/Kg	1	7/23/2012 12:03:58 PM
Motor Oil Range Organics (MRO)	240	51		mg/Kg	1	7/23/2012 12:03:58 PM
Surr: DNOP	120	77.6-140		%REC	1	7/23/2012 12:03:58 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	20		mg/Kg	4	7/30/2012 8:38:54 PM
Surr: BFB	107	84-116		%REC	4	7/30/2012 8:38:54 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.27	0.033		mg/Kg	1	8/2/2012 9:56:09 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 4:20:29 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 4:18:27 PM
Barium	490	2.0		mg/Kg	20	8/5/2012 2:29:09 PM
Beryllium	ND	0.75		mg/Kg	5	8/4/2012 4:18:27 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 4:20:29 PM
Chromium	63	1.5		mg/Kg	5	8/1/2012 4:20:29 PM
Cobalt	5.3	1.5		mg/Kg	5	8/4/2012 4:18:27 PM
Iron	18000	500		mg/Kg	500	8/5/2012 2:31:23 PM
Lead	14	1.2		mg/Kg	5	8/4/2012 4:18:27 PM
Manganese	550	2.0		mg/Kg	20	8/5/2012 2:29:09 PM
Nickel	9.8	2.5		mg/Kg	5	8/4/2012 4:18:27 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 4:20:29 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:18:27 PM
Vanadium	26	12		mg/Kg	5	8/1/2012 4:20:29 PM
Zinc	190	12		mg/Kg	5	8/4/2012 4:18:27 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Aniline	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Anthracene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Azobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-5 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 3:00:00 PM
Lab ID: 1207940-016
Matrix: SOIL
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Carbazole	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/30/2012 10:09:54 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Chrysene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/30/2012 10:09:54 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/30/2012 10:09:54 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 10:09:54 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/30/2012 10:09:54 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/30/2012 10:09:54 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Fluorene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Isophorone	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Naphthalene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-5 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 3:00:00 PM
Lab ID: 1207940-016 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 10:09:54 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/30/2012 10:09:54 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/30/2012 10:09:54 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Phenol	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Pyrene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Pyridine	ND	2.5		mg/Kg	1	7/30/2012 10:09:54 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 10:09:54 PM
Surr: 2,4,6-Tribromophenol	77.6	20.1-121		%REC	1	7/30/2012 10:09:54 PM
Surr: 2-Fluorobiphenyl	77.9	19-133		%REC	1	7/30/2012 10:09:54 PM
Surr: 2-Fluorophenol	68.0	20.2-108		%REC	1	7/30/2012 10:09:54 PM
Surr: 4-Terphenyl-d14	76.2	18.9-115		%REC	1	7/30/2012 10:09:54 PM
Surr: Nitrobenzene-d5	76.9	20.8-123		%REC	1	7/30/2012 10:09:54 PM
Surr: Phenol-d5	67.6	19.8-115		%REC	1	7/30/2012 10:09:54 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Toluene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Ethylbenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Xylenes, Total	ND	3.68		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Methyl tert-butyl ether (MTBE)	ND	2.45		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2,4-Trimethylbenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,3,5-Trimethylbenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2-Dichloroethane (EDC)	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2-Dibromoethane (EDB)	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Naphthalene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1-Methylnaphthalene	ND	4.90		µg/Kg-dry	1	7/26/2012 11:11:45 PM
2-Methylnaphthalene	ND	4.90		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Acetone	ND	36.8		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Bromobenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Bromodichloromethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Bromoform	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
2-Butanone	ND	6.13		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Carbon tetrachloride	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Chlorobenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Chloroethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Chloroform	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-016 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (0-0.5')
Collection Date: 7/19/2012 3:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
2-Chlorotoluene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Carbon disulfide	ND	6.13		µg/Kg-dry	1	7/26/2012 11:11:45 PM
4-Chlorotoluene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
cis-1,2-DCE	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
cis-1,3-Dichloropropene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2-Dibromo-3-chloropropane	ND	2.45		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Dibromochloromethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Dibromomethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2-Dichlorobenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,3-Dichlorobenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,4-Dichlorobenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Dichlorodifluoromethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,1-Dichloroethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,1-Dichloroethene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2-Dichloropropane	ND	2.45		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,3-Dichloropropane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
2,2-Dichloropropane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,1-Dichloropropene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Hexachlorobutadiene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Isopropylbenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
4-Isopropyltoluene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Methylene chloride	ND	6.13		µg/Kg-dry	1	7/26/2012 11:11:45 PM
n-Butylbenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
2-Hexanone	ND	6.13		µg/Kg-dry	1	7/26/2012 11:11:45 PM
n-Propylbenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
sec-Butylbenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Styrene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
4-Methyl-2-pentanone	ND	6.13		µg/Kg-dry	1	7/26/2012 11:11:45 PM
tert-Butylbenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,1,1,2-Tetrachloroethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,1,2,2-Tetrachloroethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Tetrachloroethene (PCE)	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
trans-1,2-DCE	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
trans-1,3-Dichloropropene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2,3-Trichlorobenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2,4-Trichlorobenzene	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,1,1-Trichloroethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,1,2-Trichloroethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Trichloroethene (TCE)	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Trichlorofluoromethane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
1,2,3-Trichloropropane	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-016 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (0-0.5')
Collection Date: 7/19/2012 3:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	1.23		µg/Kg-dry	1	7/26/2012 11:11:45 PM
Surr: 1,2-Dichloroethane-d4	179	70-130	S	%REC	1	7/26/2012 11:11:45 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	7/26/2012 11:11:45 PM
Surr: Dibromofluoromethane	85.3	70-130		%REC	1	7/26/2012 11:11:45 PM
Surr: Toluene-d8	97.3	70-130		%REC	1	7/26/2012 11:11:45 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-017 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (0-0.5') DUP
Collection Date: 7/19/2012 3:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	280	9.8		mg/Kg	1	7/23/2012 1:53:07 PM
Motor Oil Range Organics (MRO)	220	49		mg/Kg	1	7/23/2012 1:53:07 PM
Surr: DNOP	112	77.6-140		%REC	1	7/23/2012 1:53:07 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	20		mg/Kg	4	7/31/2012 12:40:15 AM
Surr: BFB	101	84-116		%REC	4	7/31/2012 12:40:15 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.23	0.033		mg/Kg	1	8/2/2012 9:57:56 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 4:25:31 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 4:20:48 PM
Barium	460	2.0		mg/Kg	20	8/5/2012 2:33:58 PM
Beryllium	ND	0.75		mg/Kg	5	8/4/2012 4:20:48 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 4:25:31 PM
Chromium	29	1.5		mg/Kg	5	8/1/2012 4:25:31 PM
Cobalt	3.9	1.5		mg/Kg	5	8/4/2012 4:20:48 PM
Iron	12000	500		mg/Kg	500	8/5/2012 2:44:11 PM
Lead	9.9	1.2		mg/Kg	5	8/4/2012 4:20:48 PM
Manganese	870	2.0		mg/Kg	20	8/5/2012 2:33:58 PM
Nickel	7.1	2.5		mg/Kg	5	8/4/2012 4:20:48 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 4:25:31 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:20:48 PM
Vanadium	19	12		mg/Kg	5	8/1/2012 4:25:31 PM
Zinc	160	12		mg/Kg	5	8/4/2012 4:20:48 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Aniline	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Anthracene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Azobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-017 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (0-0.5') DUP
Collection Date: 7/19/2012 3:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Carbazole	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/30/2012 10:40:02 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Chrysene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/30/2012 10:40:02 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/30/2012 10:40:02 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/30/2012 10:40:02 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/30/2012 10:40:02 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/30/2012 10:40:02 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Fluorene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Isophorone	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Naphthalene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-017 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (0-0.5') DUP
Collection Date: 7/19/2012 3:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/30/2012 10:40:02 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/30/2012 10:40:02 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/30/2012 10:40:02 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Phenol	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Pyrene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Pyridine	ND	2.5		mg/Kg	1	7/30/2012 10:40:02 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/30/2012 10:40:02 PM
Surr: 2,4,6-Tribromophenol	89.3	20.1-121		%REC	1	7/30/2012 10:40:02 PM
Surr: 2-Fluorobiphenyl	81.6	19-133		%REC	1	7/30/2012 10:40:02 PM
Surr: 2-Fluorophenol	78.7	20.2-108		%REC	1	7/30/2012 10:40:02 PM
Surr: 4-Terphenyl-d14	78.3	18.9-115		%REC	1	7/30/2012 10:40:02 PM
Surr: Nitrobenzene-d5	85.1	20.8-123		%REC	1	7/30/2012 10:40:02 PM
Surr: Phenol-d5	76.1	19.8-115		%REC	1	7/30/2012 10:40:02 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Toluene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Ethylbenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Xylenes, Total	ND	2.62		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Methyl tert-butyl ether (MTBE)	ND	1.75		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2,4-Trimethylbenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,3,5-Trimethylbenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2-Dichloroethane (EDC)	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2-Dibromoethane (EDB)	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Naphthalene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1-Methylnaphthalene	ND	3.49		µg/Kg-dry	1	7/26/2012 11:39:28 PM
2-Methylnaphthalene	ND	3.49		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Acetone	ND	26.2		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Bromobenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Bromodichloromethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Bromoform	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
2-Butanone	ND	4.37		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Carbon tetrachloride	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Chlorobenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Chloroethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Chloroform	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-017 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (0-0.5') DUP
Collection Date: 7/19/2012 3:00:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
2-Chlorotoluene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Carbon disulfide	ND	4.37		µg/Kg-dry	1	7/26/2012 11:39:28 PM
4-Chlorotoluene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
cis-1,2-DCE	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
cis-1,3-Dichloropropene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2-Dibromo-3-chloropropane	ND	1.75		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Dibromochloromethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Dibromomethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2-Dichlorobenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,3-Dichlorobenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,4-Dichlorobenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Dichlorodifluoromethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,1-Dichloroethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,1-Dichloroethene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2-Dichloropropane	ND	1.75		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,3-Dichloropropane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
2,2-Dichloropropane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,1-Dichloropropene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Hexachlorobutadiene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Isopropylbenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
4-Isopropyltoluene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Methylene chloride	ND	4.37		µg/Kg-dry	1	7/26/2012 11:39:28 PM
n-Butylbenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
2-Hexanone	ND	4.37		µg/Kg-dry	1	7/26/2012 11:39:28 PM
n-Propylbenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
sec-Butylbenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Styrene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
4-Methyl-2-pentanone	ND	4.37		µg/Kg-dry	1	7/26/2012 11:39:28 PM
tert-Butylbenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,1,1,2-Tetrachloroethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,1,2,2-Tetrachloroethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Tetrachloroethene (PCE)	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
trans-1,2-DCE	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
trans-1,3-Dichloropropene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2,3-Trichlorobenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2,4-Trichlorobenzene	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,1,1-Trichloroethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,1,2-Trichloroethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Trichloroethene (TCE)	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Trichlorofluoromethane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
1,2,3-Trichloropropane	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-5 (0-0.5') DUP
Project: SWMU NO.14
Collection Date: 7/19/2012 3:00:00 PM
Lab ID: 1207940-017
Matrix: SOIL
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.873		µg/Kg-dry	1	7/26/2012 11:39:28 PM
Surr: 1,2-Dichloroethane-d4	182	70-130	S	%REC	1	7/26/2012 11:39:28 PM
Surr: 4-Bromofluorobenzene	96.3	70-130		%REC	1	7/26/2012 11:39:28 PM
Surr: Dibromofluoromethane	85.8	70-130		%REC	1	7/26/2012 11:39:28 PM
Surr: Toluene-d8	94.2	70-130		%REC	1	7/26/2012 11:39:28 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-018 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (1.5-2.0')
Collection Date: 7/19/2012 3:06:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	53	10		mg/Kg	1	7/23/2012 9:56:26 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	7/23/2012 9:56:26 AM
Surr: DNOP	108	77.6-140		%REC	1	7/23/2012 9:56:26 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/31/2012 1:10:26 AM
Surr: BFB	118	84-116	S	%REC	1	7/31/2012 1:10:26 AM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 9:59:44 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 4:30:33 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 4:23:19 PM
Barium	340	2.0		mg/Kg	20	8/5/2012 2:46:45 PM
Beryllium	ND	0.75		mg/Kg	5	8/4/2012 4:23:19 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 4:30:33 PM
Chromium	11	1.5		mg/Kg	5	8/1/2012 4:30:33 PM
Cobalt	4.6	1.5		mg/Kg	5	8/4/2012 4:23:19 PM
Iron	13000	500		mg/Kg	500	8/5/2012 2:48:56 PM
Lead	2.5	1.2		mg/Kg	5	8/4/2012 4:23:19 PM
Manganese	450	2.0		mg/Kg	20	8/5/2012 2:46:45 PM
Nickel	7.1	2.5		mg/Kg	5	8/4/2012 4:23:19 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 4:30:33 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:23:19 PM
Vanadium	26	12		mg/Kg	5	8/1/2012 4:30:33 PM
Zinc	20	12		mg/Kg	5	8/4/2012 4:23:19 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Acenaphthylene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Aniline	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Anthracene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Azobenzene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Benzoic acid	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-018 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (1.5-2.0')
Collection Date: 7/19/2012 3:06:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Carbazole	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	7/30/2012 11:10:04 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Chrysene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	7/30/2012 11:10:04 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Dibenzofuran	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
3,3´-Dichlorobenzidine	ND	0.25		mg/Kg	1	7/30/2012 11:10:04 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	7/30/2012 11:10:04 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	7/30/2012 11:10:04 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	7/30/2012 11:10:04 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
Fluoranthene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Fluorene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Hexachloroethane	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Isophorone	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
2-Methylphenol	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Naphthalene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-5 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 3:06:00 PM
Lab ID: 1207940-018 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
3-Nitroaniline	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	7/30/2012 11:10:04 PM
Nitrobenzene	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	7/30/2012 11:10:04 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	7/30/2012 11:10:04 PM
Phenanthrene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Phenol	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Pyrene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Pyridine	ND	0.50		mg/Kg	1	7/30/2012 11:10:04 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	7/30/2012 11:10:04 PM
Surr: 2,4,6-Tribromophenol	81.4	20.1-121		%REC	1	7/30/2012 11:10:04 PM
Surr: 2-Fluorobiphenyl	67.6	19-133		%REC	1	7/30/2012 11:10:04 PM
Surr: 2-Fluorophenol	59.3	20.2-108		%REC	1	7/30/2012 11:10:04 PM
Surr: 4-Terphenyl-d14	71.8	18.9-115		%REC	1	7/30/2012 11:10:04 PM
Surr: Nitrobenzene-d5	70.4	20.8-123		%REC	1	7/30/2012 11:10:04 PM
Surr: Phenol-d5	64.0	19.8-115		%REC	1	7/30/2012 11:10:04 PM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Toluene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Naphthalene	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/24/2012 2:30:42 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/24/2012 2:30:42 PM
Acetone	ND	0.75		mg/Kg	1	7/24/2012 2:30:42 PM
Bromobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Bromoform	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Bromomethane	ND	0.15		mg/Kg	1	7/24/2012 2:30:42 PM
2-Butanone	ND	0.50		mg/Kg	1	7/24/2012 2:30:42 PM
Carbon disulfide	ND	0.50		mg/Kg	1	7/24/2012 2:30:42 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
Chlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Chloroethane	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-5 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 3:06:00 PM
Lab ID: 1207940-018 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Chloromethane	ND	0.15		mg/Kg	1	7/24/2012 2:30:42 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Dibromomethane	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
2-Hexanone	ND	0.50		mg/Kg	1	7/24/2012 2:30:42 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	7/24/2012 2:30:42 PM
Methylene chloride	ND	0.15		mg/Kg	1	7/24/2012 2:30:42 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Styrene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-018 **Matrix:** SOIL

Client Sample ID: SWMU 14-5 (1.5-2.0')
Collection Date: 7/19/2012 3:06:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	0.050		mg/Kg	1	7/24/2012 2:30:42 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/24/2012 2:30:42 PM
Surr: 1,2-Dichloroethane-d4	94.9	70-130		%REC	1	7/24/2012 2:30:42 PM
Surr: 4-Bromofluorobenzene	95.0	70-130		%REC	1	7/24/2012 2:30:42 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	7/24/2012 2:30:42 PM
Surr: Toluene-d8	105	70-130		%REC	1	7/24/2012 2:30:42 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-019 **Matrix:** SOIL

Client Sample ID: SWMU 14-19 (0-0.5')
Collection Date: 7/19/2012 3:26:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/23/2012 2:19:03 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/23/2012 2:19:03 PM
Surr: DNOP	109	77.6-140		%REC	1	7/23/2012 2:19:03 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2012 2:47:18 PM
Surr: BFB	104	84-116		%REC	1	7/30/2012 2:47:18 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 10:01:33 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 4:35:32 PM
Arsenic	ND	12		mg/Kg	5	8/4/2012 4:37:38 PM
Barium	180	0.50		mg/Kg	5	8/4/2012 4:37:38 PM
Beryllium	ND	0.75		mg/Kg	5	8/4/2012 4:37:38 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 4:35:32 PM
Chromium	6.6	1.5		mg/Kg	5	8/1/2012 4:35:32 PM
Cobalt	3.2	1.5		mg/Kg	5	8/4/2012 4:37:38 PM
Iron	8200	500		mg/kg	500	8/15/2012 8:55:15 AM
Lead	2.2	1.2		mg/Kg	5	8/4/2012 4:37:38 PM
Manganese	300	2.0		mg/kg	20	8/15/2012 8:41:50 AM
Nickel	6.9	2.5		mg/Kg	5	8/4/2012 4:37:38 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 4:35:32 PM
Silver	ND	1.2		mg/Kg	5	8/4/2012 4:37:38 PM
Vanadium	22	12		mg/Kg	5	8/1/2012 4:35:32 PM
Zinc	18	12		mg/Kg	5	8/4/2012 4:37:38 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Aniline	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Anthracene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Azobenzene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-19 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 3:26:00 PM
Lab ID: 1207940-019 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Carbazole	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/31/2012 2:08:54 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Chrysene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/31/2012 2:08:54 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/31/2012 2:08:54 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 2:08:54 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/31/2012 2:08:54 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/31/2012 2:08:54 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Fluorene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Isophorone	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Naphthalene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-019 **Matrix:** SOIL

Client Sample ID: SWMU 14-19 (0-0.5')
Collection Date: 7/19/2012 3:26:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 2:08:54 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/31/2012 2:08:54 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/31/2012 2:08:54 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Phenol	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Pyrene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Pyridine	ND	2.5		mg/Kg	1	7/31/2012 2:08:54 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 2:08:54 PM
Surr: 2,4,6-Tribromophenol	96.3	20.1-121		%REC	1	7/31/2012 2:08:54 PM
Surr: 2-Fluorobiphenyl	94.1	19-133		%REC	1	7/31/2012 2:08:54 PM
Surr: 2-Fluorophenol	84.0	20.2-108		%REC	1	7/31/2012 2:08:54 PM
Surr: 4-Terphenyl-d14	106	18.9-115		%REC	1	7/31/2012 2:08:54 PM
Surr: Nitrobenzene-d5	93.7	20.8-123		%REC	1	7/31/2012 2:08:54 PM
Surr: Phenol-d5	84.7	19.8-115		%REC	1	7/31/2012 2:08:54 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Toluene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Naphthalene	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/24/2012 2:59:07 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/24/2012 2:59:07 PM
Acetone	ND	0.75		mg/Kg	1	7/24/2012 2:59:07 PM
Bromobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Bromoform	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Bromomethane	ND	0.15		mg/Kg	1	7/24/2012 2:59:07 PM
2-Butanone	ND	0.50		mg/Kg	1	7/24/2012 2:59:07 PM
Carbon disulfide	ND	0.50		mg/Kg	1	7/24/2012 2:59:07 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
Chlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Chloroethane	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-19 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 3:26:00 PM
Lab ID: 1207940-019 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Chloromethane	ND	0.15		mg/Kg	1	7/24/2012 2:59:07 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Dibromomethane	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
2-Hexanone	ND	0.50		mg/Kg	1	7/24/2012 2:59:07 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	7/24/2012 2:59:07 PM
Methylene chloride	ND	0.15		mg/Kg	1	7/24/2012 2:59:07 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Styrene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-19 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 3:26:00 PM
Lab ID: 1207940-019 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	0.050		mg/Kg	1	7/24/2012 2:59:07 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/24/2012 2:59:07 PM
Surr: 1,2-Dichloroethane-d4	95.5	70-130		%REC	1	7/24/2012 2:59:07 PM
Surr: 4-Bromofluorobenzene	98.4	70-130		%REC	1	7/24/2012 2:59:07 PM
Surr: Dibromofluoromethane	104	70-130		%REC	1	7/24/2012 2:59:07 PM
Surr: Toluene-d8	97.9	70-130		%REC	1	7/24/2012 2:59:07 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-020 **Matrix:** SOIL

Client Sample ID: SWMU 14-19 (1.5-2.0')
Collection Date: 7/19/2012 3:33:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	29	9.8		mg/Kg	1	7/23/2012 4:03:03 PM
Motor Oil Range Organics (MRO)	51	49		mg/Kg	1	7/23/2012 4:03:03 PM
Surr: DNOP	110	77.6-140		%REC	1	7/23/2012 4:03:03 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2012 3:16:07 PM
Surr: BFB	101	84-116		%REC	1	7/30/2012 3:16:07 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.063	0.033		mg/Kg	1	8/2/2012 10:03:21 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/1/2012 2:07:41 PM
Arsenic	ND	12		mg/Kg	5	8/1/2012 2:07:41 PM
Barium	790	5.0		mg/kg	50	8/18/2012 11:41:55 AM
Beryllium	0.81	0.75		mg/Kg	5	8/1/2012 2:07:41 PM
Cadmium	ND	0.50		mg/Kg	5	8/1/2012 2:07:41 PM
Chromium	12	1.5		mg/Kg	5	8/1/2012 2:07:41 PM
Cobalt	4.8	1.5		mg/Kg	5	8/1/2012 2:07:41 PM
Iron	12000	500		mg/kg	500	8/18/2012 11:44:19 AM
Lead	4.1	1.2		mg/Kg	5	8/1/2012 2:07:41 PM
Manganese	640	5.0		mg/kg	50	8/18/2012 11:41:55 AM
Nickel	8.0	2.5		mg/Kg	5	8/1/2012 2:07:41 PM
Selenium	ND	12		mg/Kg	5	8/1/2012 2:07:41 PM
Silver	ND	1.2		mg/Kg	5	8/1/2012 2:07:41 PM
Vanadium	21	12		mg/Kg	5	8/1/2012 2:07:41 PM
Zinc	34	12		mg/Kg	5	8/1/2012 2:07:41 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Acenaphthylene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Aniline	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Anthracene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Azobenzene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Benz(a)anthracene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Benzoic acid	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
Benzyl alcohol	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-020 **Matrix:** SOIL

Client Sample ID: SWMU 14-19 (1.5-2.0')
Collection Date: 7/19/2012 3:33:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Carbazole	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
4-Chloro-3-methylphenol	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
4-Chloroaniline	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	7/31/2012 3:40:39 PM
2-Chlorophenol	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Chrysene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Di-n-butyl phthalate	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
Di-n-octyl phthalate	ND	2.5		mg/Kg	1	7/31/2012 3:40:39 PM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Dibenzofuran	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
3,3'-Dichlorobenzidine	ND	2.5		mg/Kg	1	7/31/2012 3:40:39 PM
Diethyl phthalate	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Dimethyl phthalate	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	7/31/2012 3:40:39 PM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	7/31/2012 3:40:39 PM
4,6-Dinitro-2-methylphenol	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	7/31/2012 3:40:39 PM
2,4-Dinitrotoluene	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
2,6-Dinitrotoluene	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
Fluoranthene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Fluorene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Hexachlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Hexachloroethane	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Isophorone	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
1-Methylnaphthalene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
2-Methylnaphthalene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
2-Methylphenol	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
3+4-Methylphenol	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Naphthalene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
2-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-020 **Matrix:** SOIL

Client Sample ID: SWMU 14-19 (1.5-2.0')
Collection Date: 7/19/2012 3:33:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
3-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
4-Nitroaniline	ND	4.0		mg/Kg	1	7/31/2012 3:40:39 PM
Nitrobenzene	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
2-Nitrophenol	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
4-Nitrophenol	ND	2.5		mg/Kg	1	7/31/2012 3:40:39 PM
Pentachlorophenol	ND	4.0		mg/Kg	1	7/31/2012 3:40:39 PM
Phenanthrene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Phenol	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Pyrene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Pyridine	ND	4.9		mg/Kg	1	7/31/2012 3:40:39 PM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 3:40:39 PM
Surr: 2,4,6-Tribromophenol	89.5	20.1-121		%REC	1	7/31/2012 3:40:39 PM
Surr: 2-Fluorobiphenyl	98.4	19-133		%REC	1	7/31/2012 3:40:39 PM
Surr: 2-Fluorophenol	93.9	20.2-108		%REC	1	7/31/2012 3:40:39 PM
Surr: 4-Terphenyl-d14	136	18.9-115	S	%REC	1	7/31/2012 3:40:39 PM
Surr: Nitrobenzene-d5	104	20.8-123		%REC	1	7/31/2012 3:40:39 PM
Surr: Phenol-d5	91.9	19.8-115		%REC	1	7/31/2012 3:40:39 PM
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Benzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Toluene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Naphthalene	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/25/2012 2:29:14 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/25/2012 2:29:14 PM
Acetone	ND	0.75		mg/Kg	1	7/25/2012 2:29:14 PM
Bromobenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Bromoform	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Bromomethane	ND	0.15		mg/Kg	1	7/25/2012 2:29:14 PM
2-Butanone	ND	0.50		mg/Kg	1	7/25/2012 2:29:14 PM
Carbon disulfide	ND	0.50		mg/Kg	1	7/25/2012 2:29:14 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
Chlorobenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Chloroethane	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-020 **Matrix:** SOIL

Client Sample ID: SWMU 14-19 (1.5-2.0')
Collection Date: 7/19/2012 3:33:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: JDJ
Chloroform	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Chloromethane	ND	0.15		mg/Kg	1	7/25/2012 2:29:14 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Dibromomethane	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
2-Hexanone	ND	0.50		mg/Kg	1	7/25/2012 2:29:14 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	7/25/2012 2:29:14 PM
Methylene chloride	ND	0.15		mg/Kg	1	7/25/2012 2:29:14 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Styrene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-19 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 3:33:00 PM
Lab ID: 1207940-020 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **JDJ**
Vinyl chloride	ND	0.050		mg/Kg	1	7/25/2012 2:29:14 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/25/2012 2:29:14 PM
Surr: 1,2-Dichloroethane-d4	95.2	70-130		%REC	1	7/25/2012 2:29:14 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	7/25/2012 2:29:14 PM
Surr: Dibromofluoromethane	105	70-130		%REC	1	7/25/2012 2:29:14 PM
Surr: Toluene-d8	104	70-130		%REC	1	7/25/2012 2:29:14 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-021 **Matrix:** SOIL

Client Sample ID: SWMU 14-17 (0-0.5')
Collection Date: 7/19/2012 4:11:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	2900	190		mg/Kg	20	7/24/2012 3:30:47 PM
Motor Oil Range Organics (MRO)	2800	970		mg/Kg	20	7/24/2012 3:30:47 PM
Surr: DNOP	0	77.6-140	S	%REC	20	7/24/2012 3:30:47 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	7/30/2012 3:44:56 PM
Surr: BFB	102	84-116		%REC	5	7/30/2012 3:44:56 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	1.3	0.16		mg/Kg	5	8/2/2012 10:26:54 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:04:02 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:04:02 PM
Barium	850	5.0		mg/Kg	50	8/6/2012 4:20:43 PM
Beryllium	0.86	0.75		mg/Kg	5	8/5/2012 5:04:02 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:04:02 PM
Chromium	20	1.5		mg/Kg	5	8/5/2012 5:04:02 PM
Cobalt	5.4	1.5		mg/Kg	5	8/5/2012 5:04:02 PM
Iron	17000	500		mg/Kg	500	8/6/2012 4:23:05 PM
Lead	7.1	1.2		mg/Kg	5	8/5/2012 5:04:02 PM
Manganese	560	5.0		mg/Kg	50	8/6/2012 4:20:43 PM
Nickel	12	2.5		mg/Kg	5	8/5/2012 5:04:02 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:04:02 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:04:02 PM
Vanadium	28	12		mg/Kg	5	8/5/2012 5:04:02 PM
Zinc	230	12		mg/Kg	5	8/5/2012 5:04:02 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Acenaphthylene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Aniline	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Anthracene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Azobenzene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Benz(a)anthracene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Benzo(a)pyrene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Benzo(b)fluoranthene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Benzo(g,h,i)perylene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Benzo(k)fluoranthene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Benzoic acid	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
Benzyl alcohol	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Bis(2-chloroethoxy)methane	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Bis(2-chloroethyl)ether	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Bis(2-chloroisopropyl)ether	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-17 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 4:11:00 PM
Lab ID: 1207940-021 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
4-Bromophenyl phenyl ether	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Butyl benzyl phthalate	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Carbazole	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
4-Chloro-3-methylphenol	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
4-Chloroaniline	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
2-Chloronaphthalene	ND	2.5		mg/Kg	1	7/31/2012 4:11:12 PM
2-Chlorophenol	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Chrysene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Di-n-butyl phthalate	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
Di-n-octyl phthalate	ND	2.5		mg/Kg	1	7/31/2012 4:11:12 PM
Dibenz(a,h)anthracene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Dibenzofuran	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
1,2-Dichlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
1,3-Dichlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
1,4-Dichlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
3,3'-Dichlorobenzidine	ND	2.5		mg/Kg	1	7/31/2012 4:11:12 PM
Diethyl phthalate	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Dimethyl phthalate	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
2,4-Dichlorophenol	ND	4.0		mg/Kg	1	7/31/2012 4:11:12 PM
2,4-Dimethylphenol	ND	3.0		mg/Kg	1	7/31/2012 4:11:12 PM
4,6-Dinitro-2-methylphenol	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
2,4-Dinitrophenol	ND	4.0		mg/Kg	1	7/31/2012 4:11:12 PM
2,4-Dinitrotoluene	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
2,6-Dinitrotoluene	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
Fluoranthene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Fluorene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Hexachlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Hexachlorocyclopentadiene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Hexachloroethane	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Isophorone	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
1-Methylnaphthalene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
2-Methylnaphthalene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
2-Methylphenol	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
3+4-Methylphenol	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Naphthalene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
2-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-17 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 4:11:00 PM
Lab ID: 1207940-021
Matrix: SOIL
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
4-Nitroaniline	ND	4.0		mg/Kg	1	7/31/2012 4:11:12 PM
Nitrobenzene	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
2-Nitrophenol	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
4-Nitrophenol	ND	2.5		mg/Kg	1	7/31/2012 4:11:12 PM
Pentachlorophenol	ND	4.0		mg/Kg	1	7/31/2012 4:11:12 PM
Phenanthrene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Phenol	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Pyrene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Pyridine	ND	4.9		mg/Kg	1	7/31/2012 4:11:12 PM
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 4:11:12 PM
Surr: 2,4,6-Tribromophenol	118	20.1-121		%REC	1	7/31/2012 4:11:12 PM
Surr: 2-Fluorobiphenyl	101	19-133		%REC	1	7/31/2012 4:11:12 PM
Surr: 2-Fluorophenol	88.9	20.2-108		%REC	1	7/31/2012 4:11:12 PM
Surr: 4-Terphenyl-d14	130	18.9-115	S	%REC	1	7/31/2012 4:11:12 PM
Surr: Nitrobenzene-d5	104	20.8-123		%REC	1	7/31/2012 4:11:12 PM
Surr: Phenol-d5	86.7	19.8-115		%REC	1	7/31/2012 4:11:12 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	1.29	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Toluene	2.73	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Ethylbenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Xylenes, Total	ND	3.05		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Methyl tert-butyl ether (MTBE)	ND	2.03		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2,4-Trimethylbenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,3,5-Trimethylbenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2-Dichloroethane (EDC)	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2-Dibromoethane (EDB)	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Naphthalene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1-Methylnaphthalene	ND	4.07		µg/Kg-dry	1	7/27/2012 12:07:10 AM
2-Methylnaphthalene	ND	4.07		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Acetone	ND	30.5		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Bromobenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Bromodichloromethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Bromoform	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
2-Butanone	ND	5.09		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Carbon tetrachloride	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Chlorobenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Chloroethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Chloroform	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-17 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 4:11:00 PM
Lab ID: 1207940-021 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
2-Chlorotoluene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Carbon disulfide	ND	5.09		µg/Kg-dry	1	7/27/2012 12:07:10 AM
4-Chlorotoluene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
cis-1,2-DCE	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
cis-1,3-Dichloropropene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2-Dibromo-3-chloropropane	ND	2.03		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Dibromochloromethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Dibromomethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2-Dichlorobenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,3-Dichlorobenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,4-Dichlorobenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Dichlorodifluoromethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,1-Dichloroethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,1-Dichloroethene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2-Dichloropropane	ND	2.03		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,3-Dichloropropane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
2,2-Dichloropropane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,1-Dichloropropene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Hexachlorobutadiene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Isopropylbenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
4-Isopropyltoluene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Methylene chloride	ND	5.09		µg/Kg-dry	1	7/27/2012 12:07:10 AM
n-Butylbenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
2-Hexanone	ND	5.09		µg/Kg-dry	1	7/27/2012 12:07:10 AM
n-Propylbenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
sec-Butylbenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Styrene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
4-Methyl-2-pentanone	ND	5.09		µg/Kg-dry	1	7/27/2012 12:07:10 AM
tert-Butylbenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,1,1,2-Tetrachloroethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,1,2,2-Tetrachloroethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Tetrachloroethene (PCE)	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
trans-1,2-DCE	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
trans-1,3-Dichloropropene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2,3-Trichlorobenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2,4-Trichlorobenzene	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,1,1-Trichloroethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,1,2-Trichloroethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Trichloroethene (TCE)	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Trichlorofluoromethane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
1,2,3-Trichloropropane	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-17 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 4:11:00 PM
Lab ID: 1207940-021 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	1.02		µg/Kg-dry	1	7/27/2012 12:07:10 AM
Surr: 1,2-Dichloroethane-d4	188	70-130	S	%REC	1	7/27/2012 12:07:10 AM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	7/27/2012 12:07:10 AM
Surr: Dibromofluoromethane	88.6	70-130		%REC	1	7/27/2012 12:07:10 AM
Surr: Toluene-d8	99.4	70-130		%REC	1	7/27/2012 12:07:10 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-022 **Matrix:** SOIL

Client Sample ID: SWMU 14-17 (1.5-2.0')
Collection Date: 7/19/2012 4:18:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	13000	500		mg/Kg	50	7/24/2012 1:53:49 PM
Motor Oil Range Organics (MRO)	ND	2500		mg/Kg	50	7/24/2012 1:53:49 PM
Surr: DNOP	0	77.6-140	S	%REC	50	7/24/2012 1:53:49 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	7/30/2012 4:13:41 PM
Surr: BFB	129	84-116	S	%REC	50	7/30/2012 4:13:41 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.12	0.033		mg/Kg	1	8/2/2012 10:14:21 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:09:28 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:09:28 PM
Barium	600	5.0		mg/Kg	50	8/8/2012 9:31:51 AM
Beryllium	0.87	0.75		mg/Kg	5	8/5/2012 5:09:28 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:09:28 PM
Chromium	25	1.5		mg/Kg	5	8/5/2012 5:09:28 PM
Cobalt	5.4	1.5		mg/Kg	5	8/5/2012 5:09:28 PM
Iron	15000	500		mg/Kg	500	8/8/2012 9:34:20 AM
Lead	3.2	1.2		mg/Kg	5	8/5/2012 5:09:28 PM
Manganese	640	5.0		mg/Kg	50	8/8/2012 9:31:51 AM
Nickel	8.7	2.5		mg/Kg	5	8/5/2012 5:09:28 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:09:28 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:09:28 PM
Vanadium	27	12		mg/Kg	5	8/5/2012 5:09:28 PM
Zinc	37	12		mg/Kg	5	8/5/2012 5:09:28 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Aniline	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Anthracene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Azobenzene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-022 **Matrix:** SOIL

Client Sample ID: SWMU 14-17 (1.5-2.0')
Collection Date: 7/19/2012 4:18:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Carbazole	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/31/2012 4:41:47 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Chrysene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/31/2012 4:41:47 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/31/2012 4:41:47 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 4:41:47 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/31/2012 4:41:47 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/31/2012 4:41:47 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Fluorene	3.0	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Isophorone	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
1-Methylnaphthalene	29	5.0		mg/Kg	5	8/1/2012 7:00:40 PM
2-Methylnaphthalene	38	5.0		mg/Kg	5	8/1/2012 7:00:40 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Naphthalene	7.1	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-17 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 4:18:00 PM
Lab ID: 1207940-022 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 4:41:47 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/31/2012 4:41:47 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/31/2012 4:41:47 PM
Phenanthrene	9.8	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Phenol	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Pyrene	2.6	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Pyridine	ND	2.5		mg/Kg	1	7/31/2012 4:41:47 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 4:41:47 PM
Surr: 2,4,6-Tribromophenol	0	20.1-121	S	%REC	1	7/31/2012 4:41:47 PM
Surr: 2-Fluorobiphenyl	35.8	19-133		%REC	1	7/31/2012 4:41:47 PM
Surr: 2-Fluorophenol	47.7	20.2-108		%REC	1	7/31/2012 4:41:47 PM
Surr: 4-Terphenyl-d14	59.1	18.9-115		%REC	1	7/31/2012 4:41:47 PM
Surr: Nitrobenzene-d5	0	20.8-123	S	%REC	1	7/31/2012 4:41:47 PM
Surr: Phenol-d5	56.3	19.8-115		%REC	1	7/31/2012 4:41:47 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	1.6	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Toluene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Ethylbenzene	13	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2,4-Trimethylbenzene	33	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,3,5-Trimethylbenzene	7.8	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Naphthalene	17	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
1-Methylnaphthalene	38	4.0		mg/Kg	20	7/30/2012 3:17:50 PM
2-Methylnaphthalene	60	4.0		mg/Kg	20	7/30/2012 3:17:50 PM
Acetone	ND	15		mg/Kg	20	7/30/2012 3:17:50 PM
Bromobenzene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Bromoform	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Bromomethane	ND	3.0		mg/Kg	20	7/30/2012 3:17:50 PM
2-Butanone	ND	10		mg/Kg	20	7/30/2012 3:17:50 PM
Carbon disulfide	ND	10		mg/Kg	20	7/30/2012 3:17:50 PM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
Chlorobenzene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Chloroethane	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-022 **Matrix:** SOIL

Client Sample ID: SWMU 14-17 (1.5-2.0')
Collection Date: 7/19/2012 4:18:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Chloroform	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Chloromethane	ND	3.0		mg/Kg	20	7/30/2012 3:17:50 PM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Dibromomethane	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
2-Hexanone	ND	10		mg/Kg	20	7/30/2012 3:17:50 PM
Isopropylbenzene	2.9	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
4-Isopropyltoluene	2.7	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/30/2012 3:17:50 PM
Methylene chloride	ND	3.0		mg/Kg	20	7/30/2012 3:17:50 PM
n-Butylbenzene	4.6	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
n-Propylbenzene	4.9	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
sec-Butylbenzene	2.9	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Styrene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,1,2-Trichloroethane	1.0	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/30/2012 3:17:50 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-022 **Matrix:** SOIL

Client Sample ID: SWMU 14-17 (1.5-2.0')
Collection Date: 7/19/2012 4:18:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Vinyl chloride	ND	1.0		mg/Kg	20	7/30/2012 3:17:50 PM
Xylenes, Total	14	2.0		mg/Kg	20	7/30/2012 3:17:50 PM
Surr: 1,2-Dichloroethane-d4	91.5	70-130		%REC	20	7/30/2012 3:17:50 PM
Surr: 4-Bromofluorobenzene	66.9	70-130	S	%REC	20	7/30/2012 3:17:50 PM
Surr: Dibromofluoromethane	90.6	70-130		%REC	20	7/30/2012 3:17:50 PM
Surr: Toluene-d8	101	70-130		%REC	20	7/30/2012 3:17:50 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-023 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (0-0.5')
Collection Date: 7/19/2012 4:45:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	480	49		mg/Kg	5	7/24/2012 3:08:41 PM
Motor Oil Range Organics (MRO)	480	240		mg/Kg	5	7/24/2012 3:08:41 PM
Surr: DNOP	0	77.6-140	S	%REC	5	7/24/2012 3:08:41 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	7/30/2012 4:42:30 PM
Surr: BFB	101	84-116		%REC	5	7/30/2012 4:42:30 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.062	0.033		mg/Kg	1	8/2/2012 10:16:09 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:11:50 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:11:50 PM
Barium	550	5.0		mg/Kg	50	8/8/2012 9:37:03 AM
Beryllium	ND	0.75		mg/Kg	5	8/5/2012 5:11:50 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:11:50 PM
Chromium	13	1.5		mg/Kg	5	8/5/2012 5:11:50 PM
Cobalt	4.4	1.5		mg/Kg	5	8/5/2012 5:11:50 PM
Iron	11000	500		mg/Kg	500	8/8/2012 9:39:29 AM
Lead	4.8	1.2		mg/Kg	5	8/5/2012 5:11:50 PM
Manganese	1100	5.0		mg/Kg	50	8/8/2012 9:37:03 AM
Nickel	6.9	2.5		mg/Kg	5	8/5/2012 5:11:50 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:11:50 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:11:50 PM
Vanadium	22	12		mg/Kg	5	8/5/2012 5:11:50 PM
Zinc	69	12		mg/Kg	5	8/5/2012 5:11:50 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Aniline	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Anthracene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Azobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM

Qualifiers:

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-16 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 4:45:00 PM
Lab ID: 1207940-023 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Carbazole	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/31/2012 5:12:23 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Chrysene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/31/2012 5:12:23 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/31/2012 5:12:23 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 5:12:23 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/31/2012 5:12:23 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/31/2012 5:12:23 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Fluorene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Isophorone	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Naphthalene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM

Qualifiers:
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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-023 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (0-0.5')
Collection Date: 7/19/2012 4:45:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 5:12:23 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/31/2012 5:12:23 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/31/2012 5:12:23 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Phenol	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Pyrene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Pyridine	ND	2.5		mg/Kg	1	7/31/2012 5:12:23 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 5:12:23 PM
Surr: 2,4,6-Tribromophenol	92.8	20.1-121		%REC	1	7/31/2012 5:12:23 PM
Surr: 2-Fluorobiphenyl	84.4	19-133		%REC	1	7/31/2012 5:12:23 PM
Surr: 2-Fluorophenol	72.7	20.2-108		%REC	1	7/31/2012 5:12:23 PM
Surr: 4-Terphenyl-d14	98.2	18.9-115		%REC	1	7/31/2012 5:12:23 PM
Surr: Nitrobenzene-d5	83.0	20.8-123		%REC	1	7/31/2012 5:12:23 PM
Surr: Phenol-d5	77.1	19.8-115		%REC	1	7/31/2012 5:12:23 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Toluene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Ethylbenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Xylenes, Total	ND	2.72		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Methyl tert-butyl ether (MTBE)	ND	1.81		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2,4-Trimethylbenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,3,5-Trimethylbenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2-Dichloroethane (EDC)	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2-Dibromoethane (EDB)	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Naphthalene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1-Methylnaphthalene	ND	3.62		µg/Kg-dry	1	7/27/2012 1:58:11 AM
2-Methylnaphthalene	ND	3.62		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Acetone	ND	27.2		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Bromobenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Bromodichloromethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Bromoform	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
2-Butanone	ND	4.53		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Carbon tetrachloride	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Chlorobenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Chloroethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Chloroform	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-023 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (0-0.5')
Collection Date: 7/19/2012 4:45:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
2-Chlorotoluene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Carbon disulfide	ND	4.53		µg/Kg-dry	1	7/27/2012 1:58:11 AM
4-Chlorotoluene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
cis-1,2-DCE	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
cis-1,3-Dichloropropene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2-Dibromo-3-chloropropane	ND	1.81		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Dibromochloromethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Dibromomethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2-Dichlorobenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,3-Dichlorobenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,4-Dichlorobenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Dichlorodifluoromethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,1-Dichloroethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,1-Dichloroethene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2-Dichloropropane	ND	1.81		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,3-Dichloropropane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
2,2-Dichloropropane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,1-Dichloropropene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Hexachlorobutadiene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Isopropylbenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
4-Isopropyltoluene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Methylene chloride	ND	4.53		µg/Kg-dry	1	7/27/2012 1:58:11 AM
n-Butylbenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
2-Hexanone	ND	4.53		µg/Kg-dry	1	7/27/2012 1:58:11 AM
n-Propylbenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
sec-Butylbenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Styrene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
4-Methyl-2-pentanone	ND	4.53		µg/Kg-dry	1	7/27/2012 1:58:11 AM
tert-Butylbenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,1,1,2-Tetrachloroethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,1,2,2-Tetrachloroethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Tetrachloroethene (PCE)	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
trans-1,2-DCE	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
trans-1,3-Dichloropropene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2,3-Trichlorobenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2,4-Trichlorobenzene	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,1,1-Trichloroethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,1,2-Trichloroethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Trichloroethene (TCE)	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Trichlorofluoromethane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
1,2,3-Trichloropropane	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-023 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (0-0.5')
Collection Date: 7/19/2012 4:45:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.906		µg/Kg-dry	1	7/27/2012 1:58:11 AM
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	7/27/2012 1:58:11 AM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	7/27/2012 1:58:11 AM
Surr: Dibromofluoromethane	94.0	70-130		%REC	1	7/27/2012 1:58:11 AM
Surr: Toluene-d8	101	70-130		%REC	1	7/27/2012 1:58:11 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-024 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (1.5-2.0')
Collection Date: 7/19/2012 4:51:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	4800	200		mg/Kg	20	7/24/2012 1:09:38 PM
Motor Oil Range Organics (MRO)	1100	1000		mg/Kg	20	7/24/2012 1:09:38 PM
Surr: DNOP	0	77.6-140	S	%REC	20	7/24/2012 1:09:38 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	7/30/2012 5:11:15 PM
Surr: BFB	102	84-116		%REC	50	7/30/2012 5:11:15 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.052	0.033		mg/Kg	1	8/2/2012 10:17:56 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:14:15 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:14:15 PM
Barium	1000	5.0		mg/Kg	50	8/8/2012 12:12:41 PM
Beryllium	ND	0.75		mg/Kg	5	8/5/2012 5:14:15 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:14:15 PM
Chromium	15	1.5		mg/Kg	5	8/5/2012 5:14:15 PM
Cobalt	4.5	1.5		mg/Kg	5	8/5/2012 5:14:15 PM
Iron	15000	500		mg/Kg	500	8/8/2012 12:15:05 PM
Lead	5.1	1.2		mg/Kg	5	8/5/2012 5:14:15 PM
Manganese	560	5.0		mg/Kg	50	8/8/2012 12:12:41 PM
Nickel	7.1	2.5		mg/Kg	5	8/5/2012 5:14:15 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:14:15 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:14:15 PM
Vanadium	25	12		mg/Kg	5	8/5/2012 5:14:15 PM
Zinc	25	12		mg/Kg	5	8/5/2012 5:14:15 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Aniline	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Anthracene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Azobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-024 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (1.5-2.0')
Collection Date: 7/19/2012 4:51:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Carbazole	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/31/2012 5:42:57 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Chrysene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/31/2012 5:42:57 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/31/2012 5:42:57 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 5:42:57 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/31/2012 5:42:57 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/31/2012 5:42:57 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Fluorene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Isophorone	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
1-Methylnaphthalene	6.3	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
2-Methylnaphthalene	6.1	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Naphthalene	1.4	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-024 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (1.5-2.0')
Collection Date: 7/19/2012 4:51:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 5:42:57 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/31/2012 5:42:57 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/31/2012 5:42:57 PM
Phenanthrene	1.7	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Phenol	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Pyrene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Pyridine	ND	2.5		mg/Kg	1	7/31/2012 5:42:57 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 5:42:57 PM
Surr: 2,4,6-Tribromophenol	89.7	20.1-121		%REC	1	7/31/2012 5:42:57 PM
Surr: 2-Fluorobiphenyl	78.4	19-133		%REC	1	7/31/2012 5:42:57 PM
Surr: 2-Fluorophenol	85.2	20.2-108		%REC	1	7/31/2012 5:42:57 PM
Surr: 4-Terphenyl-d14	102	18.9-115		%REC	1	7/31/2012 5:42:57 PM
Surr: Nitrobenzene-d5	94.4	20.8-123		%REC	1	7/31/2012 5:42:57 PM
Surr: Phenol-d5	84.8	19.8-115		%REC	1	7/31/2012 5:42:57 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Toluene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Ethylbenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2,4-Trimethylbenzene	3.6	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,3,5-Trimethylbenzene	1.1	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2-Dichloroethane (EDC)	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2-Dibromoethane (EDB)	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Naphthalene	3.9	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
1-Methylnaphthalene	12	4.0		mg/Kg	20	7/24/2012 4:24:10 PM
2-Methylnaphthalene	9.6	4.0		mg/Kg	20	7/24/2012 4:24:10 PM
Acetone	ND	15		mg/Kg	20	7/24/2012 4:24:10 PM
Bromobenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Bromodichloromethane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Bromoform	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Bromomethane	ND	3.0		mg/Kg	20	7/24/2012 4:24:10 PM
2-Butanone	ND	10		mg/Kg	20	7/24/2012 4:24:10 PM
Carbon disulfide	ND	10		mg/Kg	20	7/24/2012 4:24:10 PM
Carbon tetrachloride	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
Chlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Chloroethane	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-024 **Matrix:** SOIL

Client Sample ID: SWMU 14-16 (1.5-2.0')
Collection Date: 7/19/2012 4:51:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Chloromethane	ND	3.0		mg/Kg	20	7/24/2012 4:24:10 PM
2-Chlorotoluene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
4-Chlorotoluene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
cis-1,2-DCE	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
cis-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2-Dibromo-3-chloropropane	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
Dibromochloromethane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Dibromomethane	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Dichlorodifluoromethane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,1-Dichloroethane	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,1-Dichloroethene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2-Dichloropropane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,3-Dichloropropane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
2,2-Dichloropropane	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,1-Dichloropropene	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
Hexachlorobutadiene	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
2-Hexanone	ND	10		mg/Kg	20	7/24/2012 4:24:10 PM
Isopropylbenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
4-Isopropyltoluene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
4-Methyl-2-pentanone	ND	10		mg/Kg	20	7/24/2012 4:24:10 PM
Methylene chloride	ND	3.0		mg/Kg	20	7/24/2012 4:24:10 PM
n-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
n-Propylbenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
sec-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Styrene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
tert-Butylbenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,1,1,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,1,2,2-Tetrachloroethane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Tetrachloroethene (PCE)	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
trans-1,2-DCE	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
trans-1,3-Dichloropropene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2,3-Trichlorobenzene	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,1,1-Trichloroethane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,1,2-Trichloroethane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Trichloroethene (TCE)	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Trichlorofluoromethane	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
1,2,3-Trichloropropane	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-16 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 4:51:00 PM
Lab ID: 1207940-024 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	1.0		mg/Kg	20	7/24/2012 4:24:10 PM
Xylenes, Total	ND	2.0		mg/Kg	20	7/24/2012 4:24:10 PM
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%REC	20	7/24/2012 4:24:10 PM
Surr: 4-Bromofluorobenzene	83.2	70-130		%REC	20	7/24/2012 4:24:10 PM
Surr: Dibromofluoromethane	105	70-130		%REC	20	7/24/2012 4:24:10 PM
Surr: Toluene-d8	100	70-130		%REC	20	7/24/2012 4:24:10 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-025 **Matrix:** SOIL

Client Sample ID: SWMU 14-15 (0-0.5')
Collection Date: 7/19/2012 5:14:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	1400	200		mg/Kg	20	7/24/2012 1:31:41 PM
Motor Oil Range Organics (MRO)	ND	990		mg/Kg	20	7/24/2012 1:31:41 PM
Surr: DNOP	0	77.6-140	S	%REC	20	7/24/2012 1:31:41 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	7/30/2012 5:39:56 PM
Surr: BFB	101	84-116		%REC	10	7/30/2012 5:39:56 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.13	0.033		mg/Kg	1	8/2/2012 10:19:43 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:18:23 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:18:23 PM
Barium	670	5.0		mg/Kg	50	8/8/2012 9:42:14 AM
Beryllium	ND	0.75		mg/Kg	5	8/5/2012 5:18:23 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:18:23 PM
Chromium	14	1.5		mg/Kg	5	8/5/2012 5:18:23 PM
Cobalt	4.7	1.5		mg/Kg	5	8/5/2012 5:18:23 PM
Iron	12000	500		mg/Kg	500	8/8/2012 9:44:39 AM
Lead	4.1	1.2		mg/Kg	5	8/5/2012 5:18:23 PM
Manganese	540	5.0		mg/Kg	50	8/8/2012 9:42:14 AM
Nickel	8.2	2.5		mg/Kg	5	8/5/2012 5:18:23 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:18:23 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:18:23 PM
Vanadium	23	12		mg/Kg	5	8/5/2012 5:18:23 PM
Zinc	140	12		mg/Kg	5	8/5/2012 5:18:23 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Aniline	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Anthracene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Azobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-15 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 5:14:00 PM
Lab ID: 1207940-025 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Carbazole	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
2-Chloronaphthalene	ND	1.3		mg/Kg	1	7/31/2012 6:13:31 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Chrysene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
Di-n-octyl phthalate	ND	1.3		mg/Kg	1	7/31/2012 6:13:31 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
3,3'-Dichlorobenzidine	ND	1.3		mg/Kg	1	7/31/2012 6:13:31 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 6:13:31 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/31/2012 6:13:31 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/31/2012 6:13:31 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Fluorene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Isophorone	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
1-Methylnaphthalene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
2-Methylnaphthalene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Naphthalene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-025 **Matrix:** SOIL

Client Sample ID: SWMU 14-15 (0-0.5')
Collection Date: 7/19/2012 5:14:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 6:13:31 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
4-Nitrophenol	ND	1.3		mg/Kg	1	7/31/2012 6:13:31 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/31/2012 6:13:31 PM
Phenanthrene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Phenol	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Pyrene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Pyridine	ND	2.5		mg/Kg	1	7/31/2012 6:13:31 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 6:13:31 PM
Surr: 2,4,6-Tribromophenol	86.8	20.1-121		%REC	1	7/31/2012 6:13:31 PM
Surr: 2-Fluorobiphenyl	82.8	19-133		%REC	1	7/31/2012 6:13:31 PM
Surr: 2-Fluorophenol	76.1	20.2-108		%REC	1	7/31/2012 6:13:31 PM
Surr: 4-Terphenyl-d14	113	18.9-115		%REC	1	7/31/2012 6:13:31 PM
Surr: Nitrobenzene-d5	83.7	20.8-123		%REC	1	7/31/2012 6:13:31 PM
Surr: Phenol-d5	80.1	19.8-115		%REC	1	7/31/2012 6:13:31 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Toluene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Ethylbenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Xylenes, Total	ND	2.89		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Methyl tert-butyl ether (MTBE)	ND	1.92		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2,4-Trimethylbenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,3,5-Trimethylbenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2-Dichloroethane (EDC)	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2-Dibromoethane (EDB)	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Naphthalene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1-Methylnaphthalene	ND	3.85		µg/Kg-dry	1	7/27/2012 12:34:55 AM
2-Methylnaphthalene	ND	3.85		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Acetone	ND	28.9		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Bromobenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Bromodichloromethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Bromoform	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
2-Butanone	ND	4.81		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Carbon tetrachloride	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Chlorobenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Chloroethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Chloroform	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-15 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 5:14:00 PM
Lab ID: 1207940-025 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
2-Chlorotoluene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Carbon disulfide	ND	4.81		µg/Kg-dry	1	7/27/2012 12:34:55 AM
4-Chlorotoluene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
cis-1,2-DCE	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
cis-1,3-Dichloropropene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2-Dibromo-3-chloropropane	ND	1.92		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Dibromochloromethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Dibromomethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2-Dichlorobenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,3-Dichlorobenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,4-Dichlorobenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Dichlorodifluoromethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,1-Dichloroethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,1-Dichloroethene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2-Dichloropropane	ND	1.92		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,3-Dichloropropane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
2,2-Dichloropropane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,1-Dichloropropene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Hexachlorobutadiene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Isopropylbenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
4-Isopropyltoluene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Methylene chloride	ND	4.81		µg/Kg-dry	1	7/27/2012 12:34:55 AM
n-Butylbenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
2-Hexanone	ND	4.81		µg/Kg-dry	1	7/27/2012 12:34:55 AM
n-Propylbenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
sec-Butylbenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Styrene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
4-Methyl-2-pentanone	ND	4.81		µg/Kg-dry	1	7/27/2012 12:34:55 AM
tert-Butylbenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,1,1,2-Tetrachloroethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,1,2,2-Tetrachloroethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Tetrachloroethene (PCE)	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
trans-1,2-DCE	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
trans-1,3-Dichloropropene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2,3-Trichlorobenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2,4-Trichlorobenzene	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,1,1-Trichloroethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,1,2-Trichloroethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Trichloroethene (TCE)	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Trichlorofluoromethane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
1,2,3-Trichloropropane	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-15 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 5:14:00 PM
Lab ID: 1207940-025 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.962		µg/Kg-dry	1	7/27/2012 12:34:55 AM
Surr: 1,2-Dichloroethane-d4	122	70-130		%REC	1	7/27/2012 12:34:55 AM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	7/27/2012 12:34:55 AM
Surr: Dibromofluoromethane	77.5	70-130		%REC	1	7/27/2012 12:34:55 AM
Surr: Toluene-d8	99.0	70-130		%REC	1	7/27/2012 12:34:55 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-026 **Matrix:** SOIL

Client Sample ID: SWMU 14-15 (1.5-2.0')
Collection Date: 7/19/2012 5:19:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	10000	1000		mg/Kg	100	7/24/2012 2:46:24 PM
Motor Oil Range Organics (MRO)	ND	5100		mg/Kg	100	7/24/2012 2:46:24 PM
Surr: DNOP	0	77.6-140	S	%REC	100	7/24/2012 2:46:24 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1600	500		mg/Kg	100	7/30/2012 6:08:45 PM
Surr: BFB	142	84-116	S	%REC	100	7/30/2012 6:08:45 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	0.22	0.033		mg/Kg	1	8/2/2012 10:21:30 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:20:48 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:20:48 PM
Barium	650	5.0		mg/Kg	50	8/8/2012 9:47:22 AM
Beryllium	ND	0.75		mg/Kg	5	8/5/2012 5:20:48 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:20:48 PM
Chromium	8.9	1.5		mg/Kg	5	8/5/2012 5:20:48 PM
Cobalt	3.6	1.5		mg/Kg	5	8/5/2012 5:20:48 PM
Iron	7300	500		mg/Kg	500	8/8/2012 9:49:47 AM
Lead	1.3	1.2		mg/Kg	5	8/5/2012 5:20:48 PM
Manganese	360	5.0		mg/Kg	50	8/8/2012 9:47:22 AM
Nickel	5.6	2.5		mg/Kg	5	8/5/2012 5:20:48 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:20:48 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:20:48 PM
Vanadium	20	12		mg/Kg	5	8/5/2012 5:20:48 PM
Zinc	68	12		mg/Kg	5	8/5/2012 5:20:48 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Acenaphthylene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Aniline	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Anthracene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Azobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Benz(a)anthracene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Benzo(a)pyrene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Benzo(b)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Benzo(g,h,i)perylene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Benzo(k)fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Benzoic acid	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
Benzyl alcohol	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Bis(2-chloroethoxy)methane	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Bis(2-chloroethyl)ether	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Bis(2-chloroisopropyl)ether	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-026 **Matrix:** SOIL

Client Sample ID: SWMU 14-15 (1.5-2.0')
Collection Date: 7/19/2012 5:19:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
4-Bromophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Butyl benzyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Carbazole	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
4-Chloroaniline	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	7/31/2012 6:44:05 PM
2-Chlorophenol	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Chrysene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
Di-n-octyl phthalate	ND	1.2		mg/Kg	1	7/31/2012 6:44:05 PM
Dibenz(a,h)anthracene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Dibenzofuran	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
1,2-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
1,3-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
1,4-Dichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
3,3´-Dichlorobenzidine	ND	1.2		mg/Kg	1	7/31/2012 6:44:05 PM
Diethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Dimethyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	7/31/2012 6:44:05 PM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	7/31/2012 6:44:05 PM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	7/31/2012 6:44:05 PM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
Fluoranthene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Fluorene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Hexachlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Hexachlorocyclopentadiene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Hexachloroethane	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Isophorone	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
1-Methylnaphthalene	4.4	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
2-Methylnaphthalene	6.7	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
2-Methylphenol	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
3+4-Methylphenol	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Naphthalene	1.7	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
2-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-026 **Matrix:** SOIL

Client Sample ID: SWMU 14-15 (1.5-2.0')
Collection Date: 7/19/2012 5:19:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
4-Nitroaniline	ND	2.0		mg/Kg	1	7/31/2012 6:44:05 PM
Nitrobenzene	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
2-Nitrophenol	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
4-Nitrophenol	ND	1.2		mg/Kg	1	7/31/2012 6:44:05 PM
Pentachlorophenol	ND	2.0		mg/Kg	1	7/31/2012 6:44:05 PM
Phenanthrene	2.8	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Phenol	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Pyrene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Pyridine	ND	2.5		mg/Kg	1	7/31/2012 6:44:05 PM
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	1	7/31/2012 6:44:05 PM
Surr: 2,4,6-Tribromophenol	32.3	20.1-121		%REC	1	7/31/2012 6:44:05 PM
Surr: 2-Fluorobiphenyl	41.9	19-133		%REC	1	7/31/2012 6:44:05 PM
Surr: 2-Fluorophenol	0	20.2-108	S	%REC	1	7/31/2012 6:44:05 PM
Surr: 4-Terphenyl-d14	64.2	18.9-115		%REC	1	7/31/2012 6:44:05 PM
Surr: Nitrobenzene-d5	0	20.8-123	S	%REC	1	7/31/2012 6:44:05 PM
Surr: Phenol-d5	39.2	19.8-115		%REC	1	7/31/2012 6:44:05 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	2.8	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Toluene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Ethylbenzene	23	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Methyl tert-butyl ether (MTBE)	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,2,4-Trimethylbenzene	44	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,3,5-Trimethylbenzene	16	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,2-Dichloroethane (EDC)	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,2-Dibromoethane (EDB)	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Naphthalene	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
1-Methylnaphthalene	ND	10		mg/Kg	50	7/24/2012 5:20:42 PM
2-Methylnaphthalene	ND	10		mg/Kg	50	7/24/2012 5:20:42 PM
Acetone	ND	38		mg/Kg	50	7/24/2012 5:20:42 PM
Bromobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Bromodichloromethane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Bromoform	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Bromomethane	ND	7.5		mg/Kg	50	7/24/2012 5:20:42 PM
2-Butanone	ND	25		mg/Kg	50	7/24/2012 5:20:42 PM
Carbon disulfide	ND	25		mg/Kg	50	7/24/2012 5:20:42 PM
Carbon tetrachloride	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
Chlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Chloroethane	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-026 **Matrix:** SOIL

Client Sample ID: SWMU 14-15 (1.5-2.0')
Collection Date: 7/19/2012 5:19:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Chloromethane	ND	7.5		mg/Kg	50	7/24/2012 5:20:42 PM
2-Chlorotoluene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
4-Chlorotoluene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
cis-1,2-DCE	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
cis-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,2-Dibromo-3-chloropropane	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
Dibromochloromethane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Dibromomethane	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
1,2-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,3-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,4-Dichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Dichlorodifluoromethane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,1-Dichloroethane	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
1,1-Dichloroethene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,2-Dichloropropane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,3-Dichloropropane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
2,2-Dichloropropane	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
1,1-Dichloropropene	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
Hexachlorobutadiene	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
2-Hexanone	ND	25		mg/Kg	50	7/24/2012 5:20:42 PM
Isopropylbenzene	6.6	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
4-Isopropyltoluene	3.4	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
4-Methyl-2-pentanone	ND	25		mg/Kg	50	7/24/2012 5:20:42 PM
Methylene chloride	ND	7.5		mg/Kg	50	7/24/2012 5:20:42 PM
n-Butylbenzene	3.8	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
n-Propylbenzene	8.1	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
sec-Butylbenzene	3.8	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Styrene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
tert-Butylbenzene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,1,1,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,1,2,2-Tetrachloroethane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Tetrachloroethene (PCE)	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
trans-1,2-DCE	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
trans-1,3-Dichloropropene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,2,3-Trichlorobenzene	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
1,2,4-Trichlorobenzene	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,1,1-Trichloroethane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,1,2-Trichloroethane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Trichloroethene (TCE)	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Trichlorofluoromethane	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
1,2,3-Trichloropropane	ND	5.0		mg/Kg	50	7/24/2012 5:20:42 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-15 (1.5-2.0')
Project: SWMU NO.14
Collection Date: 7/19/2012 5:19:00 PM
Lab ID: 1207940-026 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	2.5		mg/Kg	50	7/24/2012 5:20:42 PM
Xylenes, Total	120	5.0		mg/Kg	50	7/24/2012 5:20:42 PM
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	50	7/24/2012 5:20:42 PM
Surr: 4-Bromofluorobenzene	84.8	70-130		%REC	50	7/24/2012 5:20:42 PM
Surr: Dibromofluoromethane	113	70-130		%REC	50	7/24/2012 5:20:42 PM
Surr: Toluene-d8	107	70-130		%REC	50	7/24/2012 5:20:42 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-027 **Matrix:** SOIL

Client Sample ID: SWMU 14-20 (0-0.5')
Collection Date: 7/19/2012 5:50:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/24/2012 9:49:16 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/24/2012 9:49:16 AM
Surr: DNOP	107	77.6-140		%REC	1	7/24/2012 9:49:16 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2012 6:37:37 PM
Surr: BFB	104	84-116		%REC	1	7/30/2012 6:37:37 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 10:23:17 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:31:38 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:31:38 PM
Barium	940	5.0		mg/Kg	50	8/8/2012 10:03:14 AM
Beryllium	ND	0.75		mg/Kg	5	8/5/2012 5:31:38 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:31:38 PM
Chromium	9.4	1.5		mg/Kg	5	8/5/2012 5:31:38 PM
Cobalt	5.2	3.0		mg/Kg	10	8/8/2012 11:34:09 AM
Iron	13000	500		mg/Kg	500	8/8/2012 10:05:39 AM
Lead	2.7	1.2		mg/Kg	5	8/5/2012 5:31:38 PM
Manganese	650	5.0		mg/Kg	50	8/8/2012 10:03:14 AM
Nickel	6.9	2.5		mg/Kg	5	8/5/2012 5:31:38 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:31:38 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:31:38 PM
Vanadium	21	12		mg/Kg	5	8/5/2012 5:31:38 PM
Zinc	17	12		mg/Kg	5	8/5/2012 5:31:38 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Acenaphthylene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Aniline	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Anthracene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Azobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Benzoic acid	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
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- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-20 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 5:50:00 PM
Lab ID: 1207940-027 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Carbazole	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	7/31/2012 7:14:38 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Chrysene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	7/31/2012 7:14:38 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Dibenzofuran	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	7/31/2012 7:14:38 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	7/31/2012 7:14:38 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	7/31/2012 7:14:38 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	7/31/2012 7:14:38 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
Fluoranthene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Fluorene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Hexachloroethane	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Isophorone	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
2-Methylphenol	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Naphthalene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM

Qualifiers:
- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-027 **Matrix:** SOIL

Client Sample ID: SWMU 14-20 (0-0.5')
Collection Date: 7/19/2012 5:50:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	7/31/2012 7:14:38 PM
Nitrobenzene	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	7/31/2012 7:14:38 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	7/31/2012 7:14:38 PM
Phenanthrene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Phenol	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Pyrene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Pyridine	ND	1.0		mg/Kg	1	7/31/2012 7:14:38 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	7/31/2012 7:14:38 PM
Surr: 2,4,6-Tribromophenol	75.9	20.1-121		%REC	1	7/31/2012 7:14:38 PM
Surr: 2-Fluorobiphenyl	64.3	19-133		%REC	1	7/31/2012 7:14:38 PM
Surr: 2-Fluorophenol	58.4	20.2-108		%REC	1	7/31/2012 7:14:38 PM
Surr: 4-Terphenyl-d14	85.2	18.9-115		%REC	1	7/31/2012 7:14:38 PM
Surr: Nitrobenzene-d5	61.7	20.8-123		%REC	1	7/31/2012 7:14:38 PM
Surr: Phenol-d5	63.1	19.8-115		%REC	1	7/31/2012 7:14:38 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Toluene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Ethylbenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Xylenes, Total	ND	3.44		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Methyl tert-butyl ether (MTBE)	ND	2.30		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2,4-Trimethylbenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,3,5-Trimethylbenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2-Dichloroethane (EDC)	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2-Dibromoethane (EDB)	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Naphthalene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1-Methylnaphthalene	ND	4.59		µg/Kg-dry	1	7/27/2012 1:02:42 AM
2-Methylnaphthalene	ND	4.59		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Acetone	ND	34.4		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Bromobenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Bromodichloromethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Bromoform	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
2-Butanone	ND	5.74		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Carbon tetrachloride	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Chlorobenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Chloroethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Chloroform	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-20 (0-0.5')
Project: SWMU NO.14
Collection Date: 7/19/2012 5:50:00 PM
Lab ID: 1207940-027
Matrix: SOIL
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
2-Chlorotoluene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Carbon disulfide	ND	5.74		µg/Kg-dry	1	7/27/2012 1:02:42 AM
4-Chlorotoluene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
cis-1,2-DCE	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
cis-1,3-Dichloropropene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2-Dibromo-3-chloropropane	ND	2.30		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Dibromochloromethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Dibromomethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2-Dichlorobenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,3-Dichlorobenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,4-Dichlorobenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Dichlorodifluoromethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,1-Dichloroethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,1-Dichloroethene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2-Dichloropropane	ND	2.30		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,3-Dichloropropane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
2,2-Dichloropropane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,1-Dichloropropene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Hexachlorobutadiene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Isopropylbenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
4-Isopropyltoluene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Methylene chloride	ND	5.74		µg/Kg-dry	1	7/27/2012 1:02:42 AM
n-Butylbenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
2-Hexanone	ND	5.74		µg/Kg-dry	1	7/27/2012 1:02:42 AM
n-Propylbenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
sec-Butylbenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Styrene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
4-Methyl-2-pentanone	ND	5.74		µg/Kg-dry	1	7/27/2012 1:02:42 AM
tert-Butylbenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,1,1,2-Tetrachloroethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,1,2,2-Tetrachloroethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Tetrachloroethene (PCE)	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
trans-1,2-DCE	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
trans-1,3-Dichloropropene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2,3-Trichlorobenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2,4-Trichlorobenzene	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,1,1-Trichloroethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,1,2-Trichloroethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Trichloroethene (TCE)	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Trichlorofluoromethane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
1,2,3-Trichloropropane	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-027 **Matrix:** SOIL

Client Sample ID: SWMU 14-20 (0-0.5')
Collection Date: 7/19/2012 5:50:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	1.15		µg/Kg-dry	1	7/27/2012 1:02:42 AM
Surr: 1,2-Dichloroethane-d4	136	70-130	S	%REC	1	7/27/2012 1:02:42 AM
Surr: 4-Bromofluorobenzene	94.4	70-130		%REC	1	7/27/2012 1:02:42 AM
Surr: Dibromofluoromethane	96.0	70-130		%REC	1	7/27/2012 1:02:42 AM
Surr: Toluene-d8	92.9	70-130		%REC	1	7/27/2012 1:02:42 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-028 **Matrix:** SOIL

Client Sample ID: SWMU 14-20 (0-0.5') DUP
Collection Date: 7/19/2012 5:50:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/24/2012 10:36:19 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	7/24/2012 10:36:19 AM
Surr: DNOP	111	77.6-140		%REC	1	7/24/2012 10:36:19 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2012 7:06:26 PM
Surr: BFB	101	84-116		%REC	1	7/30/2012 7:06:26 PM
EPA METHOD 7471: MERCURY						Analyst: **DBD**
Mercury	ND	0.033		mg/Kg	1	8/2/2012 10:25:06 AM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	8/5/2012 5:34:01 PM
Arsenic	ND	12		mg/Kg	5	8/5/2012 5:34:01 PM
Barium	890	5.0		mg/Kg	50	8/8/2012 10:08:22 AM
Beryllium	0.76	0.75		mg/Kg	5	8/5/2012 5:34:01 PM
Cadmium	ND	0.50		mg/Kg	5	8/5/2012 5:34:01 PM
Chromium	8.7	1.5		mg/Kg	5	8/5/2012 5:34:01 PM
Cobalt	7.0	1.5		mg/Kg	5	8/5/2012 5:34:01 PM
Iron	14000	500		mg/Kg	500	8/8/2012 10:10:49 AM
Lead	3.0	1.2		mg/Kg	5	8/5/2012 5:34:01 PM
Manganese	910	5.0		mg/Kg	50	8/8/2012 10:08:22 AM
Nickel	8.0	2.5		mg/Kg	5	8/5/2012 5:34:01 PM
Selenium	ND	12		mg/Kg	5	8/5/2012 5:34:01 PM
Silver	ND	1.2		mg/Kg	5	8/5/2012 5:34:01 PM
Vanadium	24	12		mg/Kg	5	8/5/2012 5:34:01 PM
Zinc	22	12		mg/Kg	5	8/5/2012 5:34:01 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Acenaphthylene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Aniline	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Anthracene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Azobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Benzoic acid	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-20 (0-0.5') DUP
Project: SWMU NO.14
Collection Date: 7/19/2012 5:50:00 PM
Lab ID: 1207940-028
Matrix: SOIL
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Carbazole	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	7/31/2012 7:45:05 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Chrysene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	7/31/2012 7:45:05 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Dibenzofuran	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	7/31/2012 7:45:05 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	7/31/2012 7:45:05 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	7/31/2012 7:45:05 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	7/31/2012 7:45:05 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
Fluoranthene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Fluorene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Hexachloroethane	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Isophorone	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
2-Methylphenol	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Naphthalene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-20 (0-0.5') DUP
Project: SWMU NO.14
Collection Date: 7/19/2012 5:50:00 PM
Lab ID: 1207940-028 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	7/31/2012 7:45:05 PM
Nitrobenzene	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	7/31/2012 7:45:05 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	7/31/2012 7:45:05 PM
Phenanthrene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Phenol	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Pyrene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Pyridine	ND	1.0		mg/Kg	1	7/31/2012 7:45:05 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	7/31/2012 7:45:05 PM
Surr: 2,4,6-Tribromophenol	47.4	20.1-121		%REC	1	7/31/2012 7:45:05 PM
Surr: 2-Fluorobiphenyl	45.2	19-133		%REC	1	7/31/2012 7:45:05 PM
Surr: 2-Fluorophenol	40.4	20.2-108		%REC	1	7/31/2012 7:45:05 PM
Surr: 4-Terphenyl-d14	53.2	18.9-115		%REC	1	7/31/2012 7:45:05 PM
Surr: Nitrobenzene-d5	46.0	20.8-123		%REC	1	7/31/2012 7:45:05 PM
Surr: Phenol-d5	43.6	19.8-115		%REC	1	7/31/2012 7:45:05 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Benzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Toluene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Ethylbenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Xylenes, Total	ND	2.93		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Methyl tert-butyl ether (MTBE)	ND	1.96		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2,4-Trimethylbenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,3,5-Trimethylbenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2-Dichloroethane (EDC)	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2-Dibromoethane (EDB)	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Naphthalene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1-Methylnaphthalene	ND	3.91		µg/Kg-dry	1	7/27/2012 1:30:26 AM
2-Methylnaphthalene	ND	3.91		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Acetone	ND	29.3		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Bromobenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Bromodichloromethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Bromoform	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
2-Butanone	ND	4.89		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Carbon tetrachloride	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Chlorobenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Chloroethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Chloroform	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-028 **Matrix:** SOIL

Client Sample ID: SWMU 14-20 (0-0.5') DUP
Collection Date: 7/19/2012 5:50:00 PM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Chloromethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
2-Chlorotoluene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Carbon disulfide	ND	4.89		µg/Kg-dry	1	7/27/2012 1:30:26 AM
4-Chlorotoluene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
cis-1,2-DCE	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
cis-1,3-Dichloropropene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2-Dibromo-3-chloropropane	ND	1.96		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Dibromochloromethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Dibromomethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2-Dichlorobenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,3-Dichlorobenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,4-Dichlorobenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Dichlorodifluoromethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,1-Dichloroethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,1-Dichloroethene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2-Dichloropropane	ND	1.96		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,3-Dichloropropane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
2,2-Dichloropropane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,1-Dichloropropene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Hexachlorobutadiene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Isopropylbenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
4-Isopropyltoluene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Methylene chloride	ND	4.89		µg/Kg-dry	1	7/27/2012 1:30:26 AM
n-Butylbenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
2-Hexanone	ND	4.89		µg/Kg-dry	1	7/27/2012 1:30:26 AM
n-Propylbenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
sec-Butylbenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Styrene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
4-Methyl-2-pentanone	ND	4.89		µg/Kg-dry	1	7/27/2012 1:30:26 AM
tert-Butylbenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,1,1,2-Tetrachloroethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,1,2,2-Tetrachloroethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Tetrachloroethene (PCE)	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
trans-1,2-DCE	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
trans-1,3-Dichloropropene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2,3-Trichlorobenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2,4-Trichlorobenzene	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,1,1-Trichloroethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,1,2-Trichloroethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Trichloroethene (TCE)	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Trichlorofluoromethane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
1,2,3-Trichloropropane	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-20 (0-0.5') DUP
Project: SWMU NO.14
Collection Date: 7/19/2012 5:50:00 PM
Lab ID: 1207940-028 **Matrix:** SOIL **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **MMS**
Vinyl chloride	ND	0.978		µg/Kg-dry	1	7/27/2012 1:30:26 AM
Surr: 1,2-Dichloroethane-d4	127	70-130		%REC	1	7/27/2012 1:30:26 AM
Surr: 4-Bromofluorobenzene	91.7	70-130		%REC	1	7/27/2012 1:30:26 AM
Surr: Dibromofluoromethane	96.0	70-130		%REC	1	7/27/2012 1:30:26 AM
Surr: Toluene-d8	98.4	70-130		%REC	1	7/27/2012 1:30:26 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-029 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-2 GW
Collection Date: 7/19/2012 10:00:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	6.5	1.0		mg/L	1	7/23/2012 7:51:04 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/23/2012 7:51:04 PM
Surr: DNOP	132	79.5-166		%REC	1	7/23/2012 7:51:04 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	1.2	0.25		mg/L	5	7/25/2012 1:33:25 PM
Surr: BFB	98.5	69.8-119		%REC	5	7/25/2012 1:33:25 PM
EPA METHOD 200.7: DISSOLVED METALS						Analyst: **JLF**
Barium	0.18	0.0020		mg/L	1	8/15/2012 11:54:12 AM
Beryllium	ND	0.0020		mg/L	1	8/10/2012 12:09:10 PM
Cadmium	ND	0.0020		mg/L	1	8/10/2012 12:09:10 PM
Chromium	0.0077	0.0060		mg/L	1	8/10/2012 12:09:10 PM
Cobalt	0.029	0.0060		mg/L	1	8/10/2012 12:09:10 PM
Iron	0.14	0.020		mg/L	1	8/10/2012 12:09:10 PM
Manganese	0.54	0.0020	*	mg/L	1	8/10/2012 12:09:10 PM
Nickel	0.18	0.010	*	mg/L	1	8/10/2012 12:09:10 PM
Silver	ND	0.0050		mg/L	1	8/10/2012 12:09:10 PM
Vanadium	ND	0.050		mg/L	1	8/10/2012 12:09:10 PM
Zinc	0.13	0.010		mg/L	1	8/10/2012 12:09:10 PM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Barium	0.54	0.0020		mg/L	1	8/7/2012 10:07:08 AM
Beryllium	0.0021	0.0020		mg/L	1	8/7/2012 10:07:08 AM
Cadmium	ND	0.0020		mg/L	1	8/7/2012 10:07:08 AM
Chromium	0.075	0.0060		mg/L	1	8/7/2012 10:07:08 AM
Cobalt	0.038	0.0060		mg/L	1	8/7/2012 10:07:08 AM
Iron	31	1.0	*	mg/L	50	8/7/2012 4:33:49 PM
Manganese	1.3	0.020	*	mg/L	10	8/7/2012 10:12:15 AM
Nickel	0.20	0.010	*	mg/L	1	8/7/2012 10:07:08 AM
Silver	ND	0.0050		mg/L	1	8/7/2012 10:07:08 AM
Vanadium	ND	0.050		mg/L	1	8/7/2012 10:07:08 AM
Zinc	0.32	0.010		mg/L	1	8/7/2012 10:07:08 AM
EPA 200.8: DISSOLVED METALS						Analyst: **SNV**
Antimony	ND	0.0050		mg/L	5	7/26/2012 7:58:22 PM
Arsenic	0.011	0.0050	*	mg/L	5	7/26/2012 7:58:22 PM
Lead	ND	0.0050		mg/L	5	7/26/2012 7:58:22 PM
Selenium	0.023	0.0050		mg/L	5	7/26/2012 7:58:22 PM
EPA 200.8: METALS						Analyst: **SNV**
Antimony	ND	0.0025		mg/L	2.5	8/13/2012 5:44:15 PM
Arsenic	0.012	0.0025	*	mg/L	2.5	8/13/2012 5:44:15 PM
Lead	0.044	0.0025	*	mg/L	2.5	8/13/2012 5:44:15 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1207940-029 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-2 GW
Collection Date: 7/19/2012 10:00:00 AM
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA 200.8: METALS						Analyst: **SNV**
Selenium	0.014	0.0025		mg/L	2.5	8/13/2012 5:44:15 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	7/24/2012 10:11:41 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Acenaphthylene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Aniline	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Anthracene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Azobenzene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Benz(a)anthracene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Benzo(a)pyrene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Benzoic acid	ND	20		µg/L	1	7/25/2012 1:45:30 PM
Benzyl alcohol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/25/2012 1:45:30 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Butyl benzyl phthalate	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Carbazole	ND	10		µg/L	1	7/25/2012 1:45:30 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
4-Chloroaniline	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2-Chloronaphthalene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2-Chlorophenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Chrysene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Di-n-butyl phthalate	20	10		µg/L	1	7/25/2012 1:45:30 PM
Di-n-octyl phthalate	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Dibenzofuran	ND	10		µg/L	1	7/25/2012 1:45:30 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Diethyl phthalate	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Dimethyl phthalate	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2,4-Dichlorophenol	ND	20		µg/L	1	7/25/2012 1:45:30 PM
2,4-Dimethylphenol	27	10		µg/L	1	7/25/2012 1:45:30 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-2 GW
Project: SWMU NO.14
Collection Date: 7/19/2012 10:00:00 AM
Lab ID: 1207940-029 **Matrix:** AQUEOUS **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/25/2012 1:45:30 PM
2,4-Dinitrophenol	ND	20		µg/L	1	7/25/2012 1:45:30 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Fluoranthene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Fluorene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Hexachlorobenzene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Hexachlorobutadiene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Hexachloroethane	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Isophorone	ND	10		µg/L	1	7/25/2012 1:45:30 PM
1-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2-Methylphenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
3+4-Methylphenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/25/2012 1:45:30 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/25/2012 1:45:30 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Naphthalene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2-Nitroaniline	ND	10		µg/L	1	7/25/2012 1:45:30 PM
3-Nitroaniline	ND	10		µg/L	1	7/25/2012 1:45:30 PM
4-Nitroaniline	ND	20		µg/L	1	7/25/2012 1:45:30 PM
Nitrobenzene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2-Nitrophenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
4-Nitrophenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Pentachlorophenol	ND	20		µg/L	1	7/25/2012 1:45:30 PM
Phenanthrene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Phenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Pyrene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Pyridine	ND	10		µg/L	1	7/25/2012 1:45:30 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/25/2012 1:45:30 PM
Surr: 2,4,6-Tribromophenol	69.8	44.2-126		%REC	1	7/25/2012 1:45:30 PM
Surr: 2-Fluorobiphenyl	66.1	37-114		%REC	1	7/25/2012 1:45:30 PM
Surr: 2-Fluorophenol	45.9	23.4-98		%REC	1	7/25/2012 1:45:30 PM
Surr: 4-Terphenyl-d14	77.8	41.3-116		%REC	1	7/25/2012 1:45:30 PM
Surr: Nitrobenzene-d5	59.6	39.5-118		%REC	1	7/25/2012 1:45:30 PM
Surr: Phenol-d5	42.2	20.9-95.9		%REC	1	7/25/2012 1:45:30 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-2 GW
Project: SWMU NO.14
Collection Date: 7/19/2012 10:00:00 AM
Lab ID: 1207940-029
Matrix: AQUEOUS
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	67	10		µg/L	10	7/27/2012 4:33:05 PM
Toluene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Ethylbenzene	49	10		µg/L	10	7/27/2012 4:33:05 PM
Methyl tert-butyl ether (MTBE)	310	10		µg/L	10	7/27/2012 4:33:05 PM
1,2,4-Trimethylbenzene	85	10		µg/L	10	7/27/2012 4:33:05 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Naphthalene	42	20		µg/L	10	7/27/2012 4:33:05 PM
1-Methylnaphthalene	61	40		µg/L	10	7/27/2012 4:33:05 PM
2-Methylnaphthalene	ND	40		µg/L	10	7/27/2012 4:33:05 PM
Acetone	420	100		µg/L	10	7/27/2012 4:33:05 PM
Bromobenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Bromodichloromethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Bromoform	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Bromomethane	ND	30		µg/L	10	7/27/2012 4:33:05 PM
2-Butanone	ND	100		µg/L	10	7/27/2012 4:33:05 PM
Carbon disulfide	ND	100		µg/L	10	7/27/2012 4:33:05 PM
Carbon Tetrachloride	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Chlorobenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Chloroethane	ND	20		µg/L	10	7/27/2012 4:33:05 PM
Chloroform	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Chloromethane	ND	30		µg/L	10	7/27/2012 4:33:05 PM
2-Chlorotoluene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
4-Chlorotoluene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
cis-1,2-DCE	ND	10		µg/L	10	7/27/2012 4:33:05 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	7/27/2012 4:33:05 PM
Dibromochloromethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Dibromomethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Dichlorodifluoromethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,1-Dichloroethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,1-Dichloroethene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,2-Dichloropropane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,3-Dichloropropane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
2,2-Dichloropropane	ND	20		µg/L	10	7/27/2012 4:33:05 PM
1,1-Dichloropropene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Hexachlorobutadiene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
2-Hexanone	ND	100		µg/L	10	7/27/2012 4:33:05 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-2 GW
Project: SWMU NO.14
Collection Date: 7/19/2012 10:00:00 AM
Lab ID: 1207940-029
Matrix: AQUEOUS
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Isopropylbenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
4-Isopropyltoluene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	7/27/2012 4:33:05 PM
Methylene Chloride	ND	30		µg/L	10	7/27/2012 4:33:05 PM
n-Butylbenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
n-Propylbenzene	10	10		µg/L	10	7/27/2012 4:33:05 PM
sec-Butylbenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Styrene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
tert-Butylbenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	7/27/2012 4:33:05 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	7/27/2012 4:33:05 PM
trans-1,2-DCE	ND	10		µg/L	10	7/27/2012 4:33:05 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Trichloroethene (TCE)	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Trichlorofluoromethane	ND	10		µg/L	10	7/27/2012 4:33:05 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	7/27/2012 4:33:05 PM
Vinyl chloride	ND	10		µg/L	10	7/27/2012 4:33:05 PM
Xylenes, Total	45	15		µg/L	10	7/27/2012 4:33:05 PM
Surr: 1,2-Dichloroethane-d4	90.2	70-130		%REC	10	7/27/2012 4:33:05 PM
Surr: 4-Bromofluorobenzene	101	70-130		%REC	10	7/27/2012 4:33:05 PM
Surr: Dibromofluoromethane	101	70-130		%REC	10	7/27/2012 4:33:05 PM
Surr: Toluene-d8	104	70-130		%REC	10	7/27/2012 4:33:05 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB071912
Project: SWMU NO.14
Collection Date: 7/19/2012 6:00:00 PM
Lab ID: 1207940-030
Matrix: AQUEOUS
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/23/2012 8:16:25 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/23/2012 8:16:25 PM
Surr: DNOP	130	79.5-166		%REC	1	7/23/2012 8:16:25 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/25/2012 2:08:44 AM
Surr: BFB	97.6	69.8-119		%REC	1	7/25/2012 2:08:44 AM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Barium	ND	0.0020		mg/L	1	8/7/2012 9:45:25 AM
Beryllium	ND	0.0020		mg/L	1	8/7/2012 9:45:25 AM
Cadmium	ND	0.0020		mg/L	1	8/7/2012 9:45:25 AM
Chromium	ND	0.0060		mg/L	1	8/7/2012 9:45:25 AM
Cobalt	ND	0.0060		mg/L	1	8/7/2012 9:45:25 AM
Iron	ND	0.020		mg/L	1	8/7/2012 9:45:25 AM
Manganese	ND	0.0020		mg/L	1	8/7/2012 9:45:25 AM
Nickel	ND	0.010		mg/L	1	8/7/2012 9:45:25 AM
Silver	ND	0.0050		mg/L	1	8/7/2012 9:45:25 AM
Vanadium	ND	0.050		mg/L	1	8/7/2012 9:45:25 AM
Zinc	ND	0.010		mg/L	1	8/7/2012 9:45:25 AM
EPA 200.8: METALS						Analyst: **SNV**
Antimony	ND	0.0010		mg/L	1	7/26/2012 8:06:14 PM
Arsenic	ND	0.0010		mg/L	1	7/26/2012 8:06:14 PM
Lead	ND	0.0010		mg/L	1	7/26/2012 8:06:14 PM
Selenium	ND	0.0010		mg/L	1	7/26/2012 8:06:14 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	7/24/2012 10:13:29 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Acenaphthylene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Aniline	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Anthracene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Azobenzene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Benz(a)anthracene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Benzo(a)pyrene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Benzoic acid	ND	20		µg/L	1	7/25/2012 2:15:34 PM
Benzyl alcohol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/25/2012 2:15:34 PM

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB071912
Project: SWMU NO.14
Collection Date: 7/19/2012 6:00:00 PM
Lab ID: 1207940-030
Matrix: AQUEOUS
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/25/2012 2:15:34 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Butyl benzyl phthalate	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Carbazole	ND	10		µg/L	1	7/25/2012 2:15:34 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
4-Chloroaniline	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2-Chloronaphthalene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2-Chlorophenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Chrysene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Di-n-butyl phthalate	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Di-n-octyl phthalate	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Dibenzofuran	ND	10		µg/L	1	7/25/2012 2:15:34 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Diethyl phthalate	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Dimethyl phthalate	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2,4-Dichlorophenol	ND	20		µg/L	1	7/25/2012 2:15:34 PM
2,4-Dimethylphenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/25/2012 2:15:34 PM
2,4-Dinitrophenol	ND	20		µg/L	1	7/25/2012 2:15:34 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Fluoranthene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Fluorene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Hexachlorobenzene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Hexachlorobutadiene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Hexachloroethane	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Isophorone	ND	10		µg/L	1	7/25/2012 2:15:34 PM
1-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2-Methylphenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
3+4-Methylphenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/25/2012 2:15:34 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/25/2012 2:15:34 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB071912
Project: SWMU NO.14
Collection Date: 7/19/2012 6:00:00 PM
Lab ID: 1207940-030 **Matrix:** AQUEOUS **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Naphthalene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2-Nitroaniline	ND	10		µg/L	1	7/25/2012 2:15:34 PM
3-Nitroaniline	ND	10		µg/L	1	7/25/2012 2:15:34 PM
4-Nitroaniline	ND	20		µg/L	1	7/25/2012 2:15:34 PM
Nitrobenzene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2-Nitrophenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
4-Nitrophenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Pentachlorophenol	ND	20		µg/L	1	7/25/2012 2:15:34 PM
Phenanthrene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Phenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Pyrene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Pyridine	ND	10		µg/L	1	7/25/2012 2:15:34 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/25/2012 2:15:34 PM
Surr: 2,4,6-Tribromophenol	98.6	44.2-126		%REC	1	7/25/2012 2:15:34 PM
Surr: 2-Fluorobiphenyl	78.3	37-114		%REC	1	7/25/2012 2:15:34 PM
Surr: 2-Fluorophenol	61.4	23.4-98		%REC	1	7/25/2012 2:15:34 PM
Surr: 4-Terphenyl-d14	93.0	41.3-116		%REC	1	7/25/2012 2:15:34 PM
Surr: Nitrobenzene-d5	74.3	39.5-118		%REC	1	7/25/2012 2:15:34 PM
Surr: Phenol-d5	45.8	20.9-95.9		%REC	1	7/25/2012 2:15:34 PM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Toluene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Ethylbenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Naphthalene	ND	2.0		µg/L	1	7/25/2012 2:19:04 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/25/2012 2:19:04 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/25/2012 2:19:04 AM
Acetone	ND	10		µg/L	1	7/25/2012 2:19:04 AM
Bromobenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Bromoform	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Bromomethane	ND	3.0		µg/L	1	7/25/2012 2:19:04 AM
2-Butanone	ND	10		µg/L	1	7/25/2012 2:19:04 AM
Carbon disulfide	ND	10		µg/L	1	7/25/2012 2:19:04 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB071912
Project: SWMU NO.14
Collection Date: 7/19/2012 6:00:00 PM
Lab ID: 1207940-030
Matrix: AQUEOUS
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Carbon Tetrachloride	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Chlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Chloroethane	ND	2.0		µg/L	1	7/25/2012 2:19:04 AM
Chloroform	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Chloromethane	ND	3.0		µg/L	1	7/25/2012 2:19:04 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/25/2012 2:19:04 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Dibromomethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/25/2012 2:19:04 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
2-Hexanone	ND	10		µg/L	1	7/25/2012 2:19:04 AM
Isopropylbenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/25/2012 2:19:04 AM
Methylene Chloride	ND	3.0		µg/L	1	7/25/2012 2:19:04 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Styrene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/25/2012 2:19:04 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB071912
Project: SWMU NO.14
Collection Date: 7/19/2012 6:00:00 PM
Lab ID: 1207940-030
Matrix: AQUEOUS
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/25/2012 2:19:04 AM
Vinyl chloride	ND	1.0		µg/L	1	7/25/2012 2:19:04 AM
Xylenes, Total	ND	1.5		µg/L	1	7/25/2012 2:19:04 AM
Surr: 1,2-Dichloroethane-d4	91.4	70-130		%REC	1	7/25/2012 2:19:04 AM
Surr: 4-Bromofluorobenzene	111	70-130		%REC	1	7/25/2012 2:19:04 AM
Surr: Dibromofluoromethane	100	70-130		%REC	1	7/25/2012 2:19:04 AM
Surr: Toluene-d8	105	70-130		%REC	1	7/25/2012 2:19:04 AM

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB071912
Project: SWMU NO.14
Collection Date: 7/19/2012 6:15:00 PM
Lab ID: 1207940-031
Matrix: AQUEOUS
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	7/23/2012 8:41:47 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	7/23/2012 8:41:47 PM
Surr: DNOP	128	79.5-166		%REC	1	7/23/2012 8:41:47 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	7/25/2012 2:38:55 AM
Surr: BFB	88.8	69.8-119		%REC	1	7/25/2012 2:38:55 AM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Barium	0.0062	0.0020		mg/L	1	8/7/2012 9:52:35 AM
Beryllium	ND	0.0020		mg/L	1	8/7/2012 9:52:35 AM
Cadmium	ND	0.0020		mg/L	1	8/7/2012 9:52:35 AM
Chromium	ND	0.0060		mg/L	1	8/7/2012 9:52:35 AM
Cobalt	ND	0.0060		mg/L	1	8/7/2012 9:52:35 AM
Iron	0.14	0.020		mg/L	1	8/7/2012 9:52:35 AM
Manganese	ND	0.0020		mg/L	1	8/7/2012 9:52:35 AM
Nickel	ND	0.010		mg/L	1	8/7/2012 9:52:35 AM
Silver	ND	0.0050		mg/L	1	8/7/2012 9:52:35 AM
Vanadium	ND	0.050		mg/L	1	8/7/2012 9:52:35 AM
Zinc	ND	0.010		mg/L	1	8/7/2012 9:52:35 AM
EPA 200.8: METALS						Analyst: **SNV**
Antimony	ND	0.0010		mg/L	1	7/26/2012 8:10:10 PM
Arsenic	ND	0.0010		mg/L	1	7/26/2012 8:10:10 PM
Lead	ND	0.0010		mg/L	1	7/26/2012 8:10:10 PM
Selenium	ND	0.0010		mg/L	1	7/26/2012 8:10:10 PM
EPA METHOD 245.1: MERCURY						Analyst: **JLF**
Mercury	ND	0.00020		mg/L	1	7/24/2012 10:15:18 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Acenaphthylene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Aniline	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Anthracene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Azobenzene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Benz(a)anthracene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Benzo(a)pyrene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Benzoic acid	ND	20		µg/L	1	7/25/2012 2:45:43 PM
Benzyl alcohol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	7/25/2012 2:45:43 PM

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB071912
Project: SWMU NO.14
Collection Date: 7/19/2012 6:15:00 PM
Lab ID: 1207940-031
Matrix: AQUEOUS
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-chloroethyl)ether	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	7/25/2012 2:45:43 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Butyl benzyl phthalate	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Carbazole	ND	10		µg/L	1	7/25/2012 2:45:43 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
4-Chloroaniline	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2-Chloronaphthalene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2-Chlorophenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Chrysene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Di-n-butyl phthalate	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Di-n-octyl phthalate	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Dibenzofuran	ND	10		µg/L	1	7/25/2012 2:45:43 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Diethyl phthalate	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Dimethyl phthalate	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2,4-Dichlorophenol	ND	20		µg/L	1	7/25/2012 2:45:43 PM
2,4-Dimethylphenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	7/25/2012 2:45:43 PM
2,4-Dinitrophenol	ND	20		µg/L	1	7/25/2012 2:45:43 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Fluoranthene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Fluorene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Hexachlorobenzene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Hexachlorobutadiene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Hexachloroethane	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Isophorone	ND	10		µg/L	1	7/25/2012 2:45:43 PM
1-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2-Methylnaphthalene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2-Methylphenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
3+4-Methylphenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	7/25/2012 2:45:43 PM
N-Nitrosodimethylamine	ND	10		µg/L	1	7/25/2012 2:45:43 PM

Qualifiers:

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB071912
Project: SWMU NO.14
Collection Date: 7/19/2012 6:15:00 PM
Lab ID: 1207940-031
Matrix: AQUEOUS
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
N-Nitrosodiphenylamine	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Naphthalene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2-Nitroaniline	ND	10		µg/L	1	7/25/2012 2:45:43 PM
3-Nitroaniline	ND	10		µg/L	1	7/25/2012 2:45:43 PM
4-Nitroaniline	ND	20		µg/L	1	7/25/2012 2:45:43 PM
Nitrobenzene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2-Nitrophenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
4-Nitrophenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Pentachlorophenol	ND	20		µg/L	1	7/25/2012 2:45:43 PM
Phenanthrene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Phenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Pyrene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Pyridine	ND	10		µg/L	1	7/25/2012 2:45:43 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	7/25/2012 2:45:43 PM
Surr: 2,4,6-Tribromophenol	61.9	44.2-126		%REC	1	7/25/2012 2:45:43 PM
Surr: 2-Fluorobiphenyl	84.9	37-114		%REC	1	7/25/2012 2:45:43 PM
Surr: 2-Fluorophenol	44.2	23.4-98		%REC	1	7/25/2012 2:45:43 PM
Surr: 4-Terphenyl-d14	81.7	41.3-116		%REC	1	7/25/2012 2:45:43 PM
Surr: Nitrobenzene-d5	85.3	39.5-118		%REC	1	7/25/2012 2:45:43 PM
Surr: Phenol-d5	44.5	20.9-95.9		%REC	1	7/25/2012 2:45:43 PM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Toluene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Ethylbenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Naphthalene	ND	2.0		µg/L	1	7/25/2012 2:47:19 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/25/2012 2:47:19 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/25/2012 2:47:19 AM
Acetone	ND	10		µg/L	1	7/25/2012 2:47:19 AM
Bromobenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Bromoform	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Bromomethane	ND	3.0		µg/L	1	7/25/2012 2:47:19 AM
2-Butanone	ND	10		µg/L	1	7/25/2012 2:47:19 AM
Carbon disulfide	ND	10		µg/L	1	7/25/2012 2:47:19 AM

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Lab ID: 1207940-031
Matrix: AQUEOUS
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Carbon Tetrachloride	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Chlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Chloroethane	ND	2.0		µg/L	1	7/25/2012 2:47:19 AM
Chloroform	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Chloromethane	ND	3.0		µg/L	1	7/25/2012 2:47:19 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/25/2012 2:47:19 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Dibromomethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/25/2012 2:47:19 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
2-Hexanone	ND	10		µg/L	1	7/25/2012 2:47:19 AM
Isopropylbenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/25/2012 2:47:19 AM
Methylene Chloride	ND	3.0		µg/L	1	7/25/2012 2:47:19 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Styrene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/25/2012 2:47:19 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB071912
Project: SWMU NO.14
Collection Date: 7/19/2012 6:15:00 PM
Lab ID: 1207940-031 **Matrix:** AQUEOUS **Received Date:** 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/25/2012 2:47:19 AM
Vinyl chloride	ND	1.0		µg/L	1	7/25/2012 2:47:19 AM
Xylenes, Total	ND	1.5		µg/L	1	7/25/2012 2:47:19 AM
Surr: 1,2-Dichloroethane-d4	92.5	70-130		%REC	1	7/25/2012 2:47:19 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	1	7/25/2012 2:47:19 AM
Surr: Dibromofluoromethane	102	70-130		%REC	1	7/25/2012 2:47:19 AM
Surr: Toluene-d8	106	70-130		%REC	1	7/25/2012 2:47:19 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: SWMU NO.14
Collection Date:
Lab ID: 1207940-032
Matrix: TRIP BLANK
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Toluene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Ethylbenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Naphthalene	ND	2.0		µg/L	1	7/25/2012 3:15:33 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/25/2012 3:15:33 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/25/2012 3:15:33 AM
Acetone	ND	10		µg/L	1	7/25/2012 3:15:33 AM
Bromobenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Bromoform	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Bromomethane	ND	3.0		µg/L	1	7/25/2012 3:15:33 AM
2-Butanone	ND	10		µg/L	1	7/25/2012 3:15:33 AM
Carbon disulfide	ND	10		µg/L	1	7/25/2012 3:15:33 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Chlorobenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Chloroethane	ND	2.0		µg/L	1	7/25/2012 3:15:33 AM
Chloroform	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Chloromethane	ND	3.0		µg/L	1	7/25/2012 3:15:33 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/25/2012 3:15:33 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Dibromomethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/25/2012 3:15:33 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
2-Hexanone	ND	10		µg/L	1	7/25/2012 3:15:33 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: TRIP BLANK
Project: SWMU NO.14
Collection Date:
Lab ID: 1207940-032
Matrix: TRIP BLANK
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Isopropylbenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/25/2012 3:15:33 AM
Methylene Chloride	ND	3.0		µg/L	1	7/25/2012 3:15:33 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Styrene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/25/2012 3:15:33 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/25/2012 3:15:33 AM
Vinyl chloride	ND	1.0		µg/L	1	7/25/2012 3:15:33 AM
Xylenes, Total	ND	1.5		µg/L	1	7/25/2012 3:15:33 AM
Surr: 1,2-Dichloroethane-d4	92.8	70-130		%REC	1	7/25/2012 3:15:33 AM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	1	7/25/2012 3:15:33 AM
Surr: Dibromofluoromethane	105	70-130		%REC	1	7/25/2012 3:15:33 AM
Surr: Toluene-d8	104	70-130		%REC	1	7/25/2012 3:15:33 AM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MEOH BLANK
Project: SWMU NO.14
Collection Date:
Lab ID: 1207940-033
Matrix: MEOH BLAN
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/30/2012 7:35:12 PM
Surr: BFB	99.3	84-116		%REC	1	7/30/2012 7:35:12 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Toluene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Naphthalene	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/30/2012 4:43:17 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/30/2012 4:43:17 PM
Acetone	ND	0.75		mg/Kg	1	7/30/2012 4:43:17 PM
Bromobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Bromoform	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Bromomethane	ND	0.15		mg/Kg	1	7/30/2012 4:43:17 PM
2-Butanone	ND	0.50		mg/Kg	1	7/30/2012 4:43:17 PM
Carbon disulfide	ND	0.50		mg/Kg	1	7/30/2012 4:43:17 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
Chlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Chloroethane	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
Chloroform	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Chloromethane	ND	0.15		mg/Kg	1	7/30/2012 4:43:17 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Dibromomethane	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MEOH BLANK
Project: SWMU NO.14
Collection Date:
Lab ID: 1207940-033
Matrix: MEOH BLAN
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
2,2-Dichloropropane	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
2-Hexanone	ND	0.50		mg/Kg	1	7/30/2012 4:43:17 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	7/30/2012 4:43:17 PM
Methylene chloride	ND	0.15		mg/Kg	1	7/30/2012 4:43:17 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Styrene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
Vinyl chloride	ND	0.050		mg/Kg	1	7/30/2012 4:43:17 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/30/2012 4:43:17 PM
Surr: 1,2-Dichloroethane-d4	95.1	70-130		%REC	1	7/30/2012 4:43:17 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	7/30/2012 4:43:17 PM
Surr: Dibromofluoromethane	94.0	70-130		%REC	1	7/30/2012 4:43:17 PM
Surr: Toluene-d8	104	70-130		%REC	1	7/30/2012 4:43:17 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MeOH Blank
Project: SWMU NO.14
Collection Date:
Lab ID: 1207940-034
Matrix: MEOH BLAN
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/2/2012 2:26:44 AM
Surr: BFB	98.7	84-116		%REC	1	8/2/2012 2:26:44 AM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Toluene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Naphthalene	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	7/30/2012 4:14:49 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	7/30/2012 4:14:49 PM
Acetone	ND	0.75		mg/Kg	1	7/30/2012 4:14:49 PM
Bromobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Bromoform	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Bromomethane	ND	0.15		mg/Kg	1	7/30/2012 4:14:49 PM
2-Butanone	ND	0.50		mg/Kg	1	7/30/2012 4:14:49 PM
Carbon disulfide	ND	0.50		mg/Kg	1	7/30/2012 4:14:49 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
Chlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Chloroethane	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
Chloroform	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Chloromethane	ND	0.15		mg/Kg	1	7/30/2012 4:14:49 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Dibromomethane	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits
- U Samples with CalcVal < MDL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: MeOH Blank
Project: SWMU NO.14
Collection Date:
Lab ID: 1207940-034
Matrix: MEOH BLAN
Received Date: 7/20/2012 2:26:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
2,2-Dichloropropane	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
2-Hexanone	ND	0.50		mg/Kg	1	7/30/2012 4:14:49 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	7/30/2012 4:14:49 PM
Methylene chloride	ND	0.15		mg/Kg	1	7/30/2012 4:14:49 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Styrene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
Vinyl chloride	ND	0.050		mg/Kg	1	7/30/2012 4:14:49 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/30/2012 4:14:49 PM
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%REC	1	7/30/2012 4:14:49 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	7/30/2012 4:14:49 PM
Surr: Dibromofluoromethane	92.1	70-130		%REC	1	7/30/2012 4:14:49 PM
Surr: Toluene-d8	97.2	70-130		%REC	1	7/30/2012 4:14:49 PM

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	U	Samples with CalcVal < MDL

Anatek Labs, Inc.

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120725001
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1207940
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120725001-001	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-001D / SWMU 14-10 (0-0.5)			**Sampling Time**	11:00 AM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

Sample Number	120725001-002	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-002D / SWMU 14-10 (1.5-2.0)			**Sampling Time**	11:05 AM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

Sample Number	120725001-003	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-003D / SWMU 14-8 (0-0.5)			**Sampling Time**	11:27 AM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120725001
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1207940
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120725001-004	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-004D / SWMU 14-8 (1.5-2.0)			**Sampling Time**	11:40 AM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

Sample Number	120725001-005	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-005D / SWMU 14-8 (1.5-2.0) DUP			**Sampling Time**	11:40 AM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

Sample Number	120725001-006	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-006D / SWMU 14-12 (0-0.5)			**Sampling Time**	12:05 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120725001
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1207940
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120725001-007	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-007D / SWMU 14-12 (1.5-2.0)			**Sampling Time**	12:12 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

Sample Number	120725001-008	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-008D / SWMU 14-13 (0-0.5)			**Sampling Time**	12:36 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

Sample Number	120725001-009	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-009D / SWMU 14-13 (1.5-2.0)			**Sampling Time**	12:45 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120725001
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1207940
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120725001-010	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-010D / SWMU 14-14 (0-0.5)			**Sampling Time**	1:07 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

Sample Number	120725001-011	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-011D / SWMU 14-14 (1.5-2.0)			**Sampling Time**	1:12 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

Sample Number	120725001-012	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-012D / SWMU 14-11 (0-0.5)			**Sampling Time**	1:33 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	7/31/2012	CRW	EPA 335.4	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120725001
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1207940
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120725001-013	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-013D / SWMU 14-11 (1.5-2.0)			**Sampling Time**	1:38 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number	120725001-014	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-014D / SWMU 14-18 (0-0.5)			**Sampling Time**	2:08 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	1.22	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number	120725001-015	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-015D / SWMU 14-18 (1.5-2.0)			**Sampling Time**	2:15 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	1.50	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 120725001
Project Name: 1207940

Analytical Results Report

Sample Number 120725001-016 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-016D / SWMU 14-5 (0-0.5) **Sampling Time** 3:00 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.600	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number 120725001-017 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-017D / SWMU 14-5 (0-0.5) DUP **Sampling Time** 3:00 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number 120725001-018 **Sampling Date** 7/19/2012 **Date/Time Received** 7/24/2012 12:50 PM
Client Sample ID 1207940-018D / SWMU 14-5 (1.5-2.0) **Sampling Time** 3:06 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120725001
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1207940
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120725001-019	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-019D / SWMU 14-19 (0-0.5)			**Sampling Time**	3:26 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number	120725001-020	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-020D / SWMU 14-19 (1.5-2.0)			**Sampling Time**	3:33 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number	120725001-021	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-021D / SWMU 14-17 (0-0.5)			**Sampling Time**	4:11 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	1.33	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120725001
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1207940
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120725001-022	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-022D / SWMU 14-17 (1.5-2.0)			**Sampling Time**	4:18 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number	120725001-023	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-023D / SWMU 14-16 (0-0.5)			**Sampling Time**	4:45 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number	120725001-024	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-024D / SWMU 14-16 (1.5-2.0)			**Sampling Time**	4:51 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120725001
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1207940
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120725001-025	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-025D / SWMU 14-15 (0-0.5)			**Sampling Time**	5:14 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number	120725001-026	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-026D / SWMU 14-15 (1.5-2.0)			**Sampling Time**	5:19 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number	120725001-027	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-027D / SWMU 14-20 (0-0.5)			**Sampling Time**	5:50 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 120725001
Project Name: 1207940

Analytical Results Report

Sample Number	120725001-028	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-028D / SWMU 14-20 (0-0.5) DUP			**Sampling Time**	5:50 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.5	8/1/2012	JTT	EPA 335.4	

Sample Number	120725001-029	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-029F / SWMU 14-2 GW			**Sampling Time**	10:00 AM
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.216	mg/L	0.01	7/31/2012	CRW	EPA 335.4	

Sample Number	120725001-030	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-030F / FB071912			**Sampling Time**	6:00 PM
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	8/1/2012	JTT	EPA 335.4	

Anatek Labs, Inc.

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	120725001
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1207940
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	120725001-031	**Sampling Date**	7/19/2012	**Date/Time Received**	7/24/2012 12:50 PM
Client Sample ID	1207940-031F / EB071912			**Sampling Time**	6:15 PM
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	7/31/2012	CRW	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

MCL	EPA's Maximum Contaminant Level
ND	Not Detected
PQL	Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB-2992**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **2992**	RunNo: **4442**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124085** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Manganese	ND	0.0020								
Zinc	ND	0.010								

Sample ID **LCS-2992**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **2992**	RunNo: **4442**
Prep Date: **7/24/2012**	Analysis Date: **7/26/2012**	SeqNo: **124086** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Chromium	0.49	0.0060	0.5000	0	97.3	85	115			
Manganese	0.49	0.0020	0.5000	0	97.3	85	115			
Zinc	0.48	0.010	0.5000	0	95.8	85	115			

Sample ID **MB-2992**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **2992**	RunNo: **4694**
Prep Date: **7/24/2012**	Analysis Date: **8/7/2012**	SeqNo: **131946** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID **LCS-2992**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **2992**	RunNo: **4694**
Prep Date: **7/24/2012**	Analysis Date: **8/7/2012**	SeqNo: **131947** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.0	85	115			
Beryllium	0.51	0.0020	0.5000	0	102	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.9	85	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	LCS-2992	SampType:	LCS		TestCode:	EPA Method 200.7: Metals				
Client ID:	LCSW	Batch ID:	2992		RunNo:	4694				
Prep Date:	7/24/2012	Analysis Date:	8/7/2012		SeqNo:	131947	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.49	0.0060	0.5000	0	97.9	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.4	85	115			
Iron	0.49	0.020	0.5000	0	98.4	85	115			
Manganese	0.49	0.0020	0.5000	0	97.1	85	115			
Nickel	0.47	0.010	0.5000	0	93.7	85	115			
Silver	0.10	0.0050	0.1000	0	101	85	115			
Vanadium	0.51	0.050	0.5000	0	101	85	115			
Zinc	0.47	0.010	0.5000	0	93.9	85	115			

Sample ID	MB	SampType:	MBLK		TestCode:	EPA Method 200.7: Metals				
Client ID:	PBW	Batch ID:	R4694		RunNo:	4694				
Prep Date:		Analysis Date:	8/7/2012		SeqNo:	131952	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
[illegible]nium	ND	0.0060								
[illegible]	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS		TestCode:	EPA Method 200.7: Metals				
Client ID:	LCSW	Batch ID:	R4694		RunNo:	4694				
Prep Date:		Analysis Date:	8/7/2012		SeqNo:	131953	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.9	85	115			
Beryllium	0.51	0.0020	0.5000	0	102	85	115			
Cadmium	0.50	0.0020	0.5000	0.0005300	99.7	85	115			
Chromium	0.49	0.0060	0.5000	0	98.4	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.2	85	115			
Iron	0.49	0.020	0.5000	0	97.3	85	115			
Manganese	0.49	0.0020	0.5000	0	97.1	85	115			
Nickel	0.46	0.010	0.5000	0.001850	92.5	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Vanadium	0.51	0.050	0.5000	0	101	85	115			
Zinc	0.47	0.010	0.5000	0	93.2	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207605-004AMS** SampType: **MS** TestCode: **EPA Method 200.7: Metals**

Client ID: **BatchQC** Batch ID: **R4694** RunNo: **4694**

Prep Date: Analysis Date: **8/7/2012** SeqNo: **131960** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.63	0.0020	0.5000	0.09631	106	70	130			
Beryllium	0.55	0.0020	0.5000	0	110	70	130			
Cadmium	0.55	0.0020	0.5000	0	110	70	130			
Chromium	0.53	0.0060	0.5000	0	105	70	130			
Nickel	0.49	0.010	0.5000	0	97.7	70	130			
Zinc	0.51	0.010	0.5000	0.006940	100	70	130			

Sample ID **1207605-004AMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**

Client ID: **BatchQC** Batch ID: **R4694** RunNo: **4694**

Prep Date: Analysis Date: **8/7/2012** SeqNo: **131961** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.61	0.0020	0.5000	0.09631	103	70	130	2.89	20	
Beryllium	0.53	0.0020	0.5000	0	105	70	130	4.73	20	
Cadmium	0.53	0.0020	0.5000	0	106	70	130	4.00	20	
Chromium	0.51	0.0060	0.5000	0	102	70	130	2.90	20	
Nickel	0.48	0.010	0.5000	0	95.1	70	130	2.65	20	
Zinc	0.50	0.010	0.5000	0.006940	97.9	70	130	2.60	20	

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**

Client ID: **PBW** Batch ID: **R4878** RunNo: **4878**

Prep Date: Analysis Date: **8/15/2012** SeqNo: **137839** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**

Client ID: **LCSW** Batch ID: **R4878** RunNo: **4878**

Prep Date: Analysis Date: **8/15/2012** SeqNo: **137840** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	102	85	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	PBW	Batch ID:	R4793	RunNo:	4793					
Prep Date:		Analysis Date:	8/10/2012	SeqNo:	135124	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R4793	RunNo:	4793					
Prep Date:		Analysis Date:	8/10/2012	SeqNo:	135125	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	0.52	0.0020	0.5000	0	103	85	115			
[illegible]um	0.50	0.0020	0.5000	0	99.5	85	115			
[illegible]ium	0.50	0.0060	0.5000	0.001100	99.1	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.5	85	115			
Iron	0.49	0.020	0.5000	0.006750	97.3	85	115			
Manganese	0.49	0.0020	0.5000	0	97.8	85	115			
Nickel	0.47	0.010	0.5000	0	94.1	85	115			
Silver	0.10	0.0050	0.1000	0	99.8	85	115			
Vanadium	0.52	0.050	0.5000	0	104	85	115			
Zinc	0.49	0.010	0.5000	0.002400	97.3	85	115			

Sample ID	1206C11-001IMS	SampType:	MS	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R4793	RunNo:	4793					
Prep Date:		Analysis Date:	8/10/2012	SeqNo:	135154	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.50	0.0060	0.5000	0.003510	99.1	70	130			

Sample ID	1206C11-001IMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R4793	RunNo:	4793					
Prep Date:		Analysis Date:	8/10/2012	SeqNo:	135155	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.49	0.0060	0.5000	0.003510	97.9	70	130	1.15	20	

Qualifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R4878**	RunNo: **4878**
Prep Date:	Analysis Date: **8/15/2012**	SeqNo: **137837** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R4878**	RunNo: **4878**
Prep Date:	Analysis Date: **8/15/2012**	SeqNo: **137838** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	99.9	85	115			

Sample ID **1207385-012AMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R4878**	RunNo: **4878**
Prep Date:	Analysis Date: **8/15/2012**	SeqNo: **137908** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.54	0.0020	0.5000	0.02608	103	70	130			

Sample ID **1207385-012AMSD**	SampType: **MSD**	TestCode: **EPA Method 200.7: Dissolved Metals**
Client ID: **BatchQC**	Batch ID: **R4878**	RunNo: **4878**
Prep Date:	Analysis Date: **8/15/2012**	SeqNo: **137909** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.54	0.0020	0.5000	0.02608	102	70	130	0.846	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Metals					
Client ID:	LCSW	Batch ID:	R4467	RunNo:	4467					
Prep Date:		Analysis Date:	7/26/2012	SeqNo:	124866	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	98.9	85	115			
Arsenic	0.026	0.0010	0.02500	0	104	85	115			
Lead	0.025	0.0010	0.02500	0	98.1	85	115			
Selenium	0.028	0.0010	0.02500	0	110	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Metals					
Client ID:	PBW	Batch ID:	R4467	RunNo:	4467					
Prep Date:		Analysis Date:	7/26/2012	SeqNo:	124867	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	1207221-005AMS	SampType:	MS	TestCode:	EPA 200.8: Metals					
Client ID:	BatchQC	Batch ID:	R4467	RunNo:	4467					
Date:		Analysis Date:	7/26/2012	SeqNo:	124875	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0.0004564	98.5	70	130			

Sample ID	1207238-010AMS	SampType:	MS	TestCode:	EPA 200.8: Metals					
Client ID:	BatchQC	Batch ID:	R4467	RunNo:	4467					
Prep Date:		Analysis Date:	7/26/2012	SeqNo:	124890	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.025	0.0010	0.02500	0.0005791	96.5	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Metals					
Client ID:	LCSW	Batch ID:	R4467	RunNo:	4467					
Prep Date:		Analysis Date:	7/26/2012	SeqNo:	124891	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.024	0.0010	0.02500	0	95.5	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Metals					
Client ID:	PBW	Batch ID:	R4467	RunNo:	4467					
Prep Date:		Analysis Date:	7/26/2012	SeqNo:	124892	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	MB-2992	SampType:	MBLK	TestCode:	EPA 200.8: Metals					
Client ID:	PBW	Batch ID:	2992	RunNo:	4529					
Prep Date:	7/24/2012	Analysis Date:	7/30/2012	SeqNo:	127013	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0025								
Arsenic	ND	0.0025								
Lead	ND	0.0025								

Sample ID	MB-2992	SampType:	MBLK	TestCode:	EPA 200.8: Metals					
Client ID:	PBW	Batch ID:	2992	RunNo:	4564					
Prep Date:	7/24/2012	Analysis Date:	7/31/2012	SeqNo:	128124	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0025								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	1207285-002AMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R4467	RunNo:	4467					
Prep Date:		Analysis Date:	7/26/2012	SeqNo:	124796	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0.0004413	99.7	70	130			
Selenium	0.034	0.0010	0.02500	0.008055	106	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R4467	RunNo:	4467					
Prep Date:		Analysis Date:	7/26/2012	SeqNo:	124807	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	100	85	115			
Arsenic	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.028	0.0010	0.02500	0	111	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	PBW	Batch ID:	R4467	RunNo:	4467					
Prep Date:		Analysis Date:	7/26/2012	SeqNo:	124809	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	1207385-012AMS	SampType:	MS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	BatchQC	Batch ID:	R4467	RunNo:	4467					
Prep Date:		Analysis Date:	7/26/2012	SeqNo:	124832	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0.0005215	101	70	130			
Lead	0.024	0.0010	0.02500	0	97.4	70	130			
Selenium	0.026	0.0010	0.02500	0	103	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Dissolved Metals					
Client ID:	LCSW	Batch ID:	R4467	RunNo:	4467					
Prep Date:		Analysis Date:	7/26/2012	SeqNo:	124858	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	98.9	85	115			
Arsenic	0.026	0.0010	0.02500	0	104	85	115			
Lead	0.025	0.0010	0.02500	0	98.1	85	115			
Selenium	0.028	0.0010	0.02500	0	110	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **LCSW**	Batch ID: **R4467**	RunNo: **4467**
Prep Date:	Analysis Date: **7/26/2012**	SeqNo: **124859** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.024	0.0010	0.02500	0	95.5	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R4467**	RunNo: **4467**
Prep Date:	Analysis Date: **7/26/2012**	SeqNo: **124861** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Dissolved Metals**
Client ID: **PBW**	Batch ID: **R4467**	RunNo: **4467**
Prep Date:	Analysis Date: **7/26/2012**	SeqNo: **124862** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0010								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-2979	SampType:	MBLK	TestCode:	EPA Method 245.1: Mercury				
Client ID:	PBW	Batch ID:	2979	RunNo:	4384				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012	SeqNo:	122185	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-2979	SampType:	LCS	TestCode:	EPA Method 245.1: Mercury				
Client ID:	LCSW	Batch ID:	2979	RunNo:	4384				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012	SeqNo:	122186	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.7	80	120			

Sample ID	1207546-001BMS	SampType:	MS	TestCode:	EPA Method 245.1: Mercury				
Client ID:	BatchQC	Batch ID:	2979	RunNo:	4384				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012	SeqNo:	122188	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0042	0.00020	0.005000	0	84.4	75	125			

Sample ID	1207546-001BMSD	SampType:	MSD	TestCode:	EPA Method 245.1: Mercury				
Client ID:	BatchQC	Batch ID:	2979	RunNo:	4384				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012	SeqNo:	122191	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0040	0.00020	0.005000	0	79.7	75	125	5.66	20	

Qualifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB-2946**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **2946**	RunNo: **4221**
Prep Date: **7/21/2012**	Analysis Date: **7/22/2012**	SeqNo: **120621** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		110	77.6	140			

Sample ID **MB-2947**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **2947**	RunNo: **4221**
Prep Date: **7/21/2012**	Analysis Date: **7/22/2012**	SeqNo: **120622** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		111	77.6	140			

Sample ID **LCS-2946**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **2946**	RunNo: **4221**
Prep Date: **7/21/2012**	Analysis Date: **7/22/2012**	SeqNo: **120623** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	10	50.00	0	76.3	52.6	130			
Surr: DNOP	4.5		5.000		90.5	77.6	140			

Sample ID **LCS-2947**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **2947**	RunNo: **4221**
Prep Date: **7/21/2012**	Analysis Date: **7/22/2012**	SeqNo: **120624** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	10	50.00	0	74.6	52.6	130			
Surr: DNOP	4.4		5.000		87.1	77.6	140			

Sample ID **1207838-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **2946**	RunNo: **4221**
Prep Date: **7/21/2012**	Analysis Date: **7/22/2012**	SeqNo: **120626** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38	9.7	48.73	0	78.1	57.2	146			
Surr: DNOP	4.4		4.873		89.6	77.6	140			

Sample ID **1207838-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **2946**	RunNo: **4221**
Prep Date: **7/21/2012**	Analysis Date: **7/22/2012**	SeqNo: **120627** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	1207838-001AMSD	SampType:	MSD		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	BatchQC	Batch ID:	2946		RunNo:	4221				
Prep Date:	7/21/2012	Analysis Date:	7/22/2012		SeqNo:	120627	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	36	9.9	49.55	0	71.7	57.2	146	6.92	24.5	
Surr: DNOP	4.4		4.955		88.1	77.6	140	0	0	

Sample ID	MB-2983	SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	PBS	Batch ID:	2983		RunNo:	4371				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012		SeqNo:	121772	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		105	77.6	140			

Sample ID	LCS-2983	SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	2983		RunNo:	4371				
Prep Date:	7/23/2012	Analysis Date:	7/24/2012		SeqNo:	121845	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	10	50.00	0	80.5	52.6	130			
Surr: DNOP	4.0		5.000		79.7	77.6	140			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB-2965**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **2965**	RunNo: **4229**
Prep Date: **7/23/2012**	Analysis Date: **7/23/2012**	SeqNo: **121391** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.2		1.000		123	79.5	166			

Sample ID **LCS-2965**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **2965**	RunNo: **4229**
Prep Date: **7/23/2012**	Analysis Date: **7/23/2012**	SeqNo: **121392** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.0	74	157			
Surr: DNOP	0.51		0.5000		102	79.5	166			

Sample ID **LCSD-2965**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **2965**	RunNo: **4229**
Prep Date: **7/23/2012**	Analysis Date: **7/23/2012**	SeqNo: **121393** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.0	1.0	5.000	0	99.9	74	157	0.931	23	
Surr: DNOP	0.53		0.5000		106	79.5	166	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-3010	SampType:	MBLK		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	PBS	Batch ID:	3010		RunNo:	4444				
Prep Date:	7/24/2012	Analysis Date:	7/26/2012		SeqNo:	124694	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		99.6	84	116			

Sample ID	LCS-3010	SampType:	LCS		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	LCSS	Batch ID:	3010		RunNo:	4444				
Prep Date:	7/24/2012	Analysis Date:	7/26/2012		SeqNo:	124695	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	85	115			
Surr: BFB	1100		1000		108	84	116			

Sample ID	1207A15-001AMS	SampType:	MS		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	BatchQC	Batch ID:	3010		RunNo:	4444				
Prep Date:	7/24/2012	Analysis Date:	7/26/2012		SeqNo:	124697	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	4.7	23.61	3.490	84.9	70	130			
Surr: BFB	1100		944.3		112	84	116			

Sample ID	1207A15-001AMSD	SampType:	MSD		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	BatchQC	Batch ID:	3010		RunNo:	4444				
Prep Date:	7/24/2012	Analysis Date:	7/26/2012		SeqNo:	124698	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.7	23.58	3.490	83.3	70	130	1.63	22.1	
Surr: BFB	1100		943.4		113	84	116	0	0	

Sample ID	MB-3054	SampType:	MBLK		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	PBS	Batch ID:	3054		RunNo:	4572				
Prep Date:	7/26/2012	Analysis Date:	7/30/2012		SeqNo:	128276	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	990		1000		98.8	84	116			

Sample ID	LCS-3054	SampType:	LCS		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	LCSS	Batch ID:	3054		RunNo:	4572				
Prep Date:	7/26/2012	Analysis Date:	7/30/2012		SeqNo:	128277	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.5	85	115			
Surr: BFB	1000		1000		102	84	116			

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207B18-001AMS** SampType: **MS** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **BatchQC** Batch ID: **3054** RunNo: **4572**

Prep Date: **7/26/2012** Analysis Date: **7/30/2012** SeqNo: **128295** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	41	4.9	24.58	20.18	85.5	70	130			
Surr: BFB	1100		983.3		110	84	116			

Sample ID **1207B18-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **BatchQC** Batch ID: **3054** RunNo: **4572**

Prep Date: **7/26/2012** Analysis Date: **7/31/2012** SeqNo: **128296** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	43	4.9	24.44	20.18	91.6	70	130	3.25	22.1	
Surr: BFB	1100		977.5		111	84	116	0	0	

Sample ID **MB-3071** SampType: **MBLK** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **PBS** Batch ID: **3071** RunNo: **4513**

Prep Date: **7/27/2012** Analysis Date: **7/30/2012** SeqNo: **128374** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1200		1000		121	84	116			S

Sample ID **LCS-3071** SampType: **LCS** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **LCSS** Batch ID: **3071** RunNo: **4513**

Prep Date: **7/27/2012** Analysis Date: **7/30/2012** SeqNo: **128375** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.0	85	115			
Surr: BFB	1000		1000		102	84	116			

Sample ID **1207C50-001A MS** SampType: **MS** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **BatchQC** Batch ID: **3071** RunNo: **4513**

Prep Date: Analysis Date: **7/30/2012** SeqNo: **128377** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	2.487	91.3	70	130			
Surr: BFB	900		1000		90.5	84	116			

Sample ID **1207C50-001A MSD** SampType: **MSD** TestCode: **EPA Method 8015B: Gasoline Range**

Client ID: **BatchQC** Batch ID: **3071** RunNo: **4513**

Prep Date: Analysis Date: **7/30/2012** SeqNo: **128378** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	2.487	92.2	70	130	0.826	22.1	
Surr: BFB	1100		1000		114	84	116	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207940

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	1207B91-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	BatchQC	Batch ID:	3071	RunNo:	4576				
Prep Date:	7/27/2012	Analysis Date:	8/1/2012	SeqNo:	128410	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	12	24.20	0	74.6	70	130			
Surr: BFB	5500		4840		115	84	116			

Sample ID	1207B91-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	BatchQC	Batch ID:	3071	RunNo:	4576				
Prep Date:	7/27/2012	Analysis Date:	8/1/2012	SeqNo:	128411	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	11	22.83	0	78.8	70	130	0.351	22.1	
Surr: BFB	4700		4566		103	84	116	0	0	

Sample ID	MB-3118	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	PBS	Batch ID:	3118	RunNo:	4574				
Prep Date:	7/31/2012	Analysis Date:	8/1/2012	SeqNo:	129323	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	980		1000		98.4	84	116			

Sample ID	LCS-3118	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	LCSS	Batch ID:	3118	RunNo:	4574				
Prep Date:	7/31/2012	Analysis Date:	8/1/2012	SeqNo:	129324	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.6	85	115			
Surr: BFB	1000		1000		101	84	116			

Sample ID	1207D19-001AMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	BatchQC	Batch ID:	3118	RunNo:	4574				
Prep Date:	7/31/2012	Analysis Date:	8/1/2012	SeqNo:	129332	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	37	4.7	23.74	14.95	93.6	70	130			
Surr: BFB	1500		949.7		160	84	116			S

Sample ID	1207D19-001AMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	BatchQC	Batch ID:	3118	RunNo:	4574				
Prep Date:	7/31/2012	Analysis Date:	8/1/2012	SeqNo:	129333	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	37	4.8	24.15	14.95	91.3	70	130	0.497	22.1	
Surr: BFB	1600		966.2		167	84	116	0	0	S

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122827** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	18		20.00		88.5	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122828** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	101	75.9	119			
Surr: BFB	21		20.00		103	69.8	119			

Sample ID **1207819-004AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122835** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.7	0.25	2.500	2.307	94.7	75.4	121			
Surr: BFB	100		100.0		103	69.8	119			

Sample ID **1207819-004AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R4409**	RunNo: **4409**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122836** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.1	0.25	2.500	2.307	71.5	75.4	121	13.2	10.5	SR
Surr: BFB	96		100.0		96.5	69.8	119	0	0	

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R4435**	RunNo: **4435**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **123768** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		86.4	69.8	119			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R4435**	RunNo: **4435**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **123769** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.50	0.050	0.5000	0	99.0	75.9	119			
Surr: BFB	18		20.00		90.7	69.8	119			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **b5**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBS**	Batch ID: **R4233**	RunNo: **4233**	
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121267**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
n disulfide	ND	0.50								
on tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **b5**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121267** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.050								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.1	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		107	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		89.1	70	130			
Surr: Toluene-d8	0.53		0.5000		105	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/21/2012**	SeqNo: **121268** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	107	70.7	123			
Toluene	1.1	0.050	1.000	0	107	80	120			
Chlorobenzene	1.0	0.050	1.000	0	102	70	130			
1,1-Dichloroethene	0.99	0.050	1.000	0	99.0	63.1	148			
Trichloroethene (TCE)	0.89	0.050	1.000	0	88.8	63.2	114			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.1	70	130			
Surr: 4-Bromofluorobenzene	0.60		0.5000		121	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	100ng lcs2	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSS	Batch ID:	R4233	RunNo:	4233					
Prep Date:		Analysis Date:	7/21/2012	SeqNo:	121268	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.45		0.5000		89.3	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID	1207900-002b ms	SampType:	MS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R4233	RunNo:	4233					
Prep Date:		Analysis Date:	7/21/2012	SeqNo:	121269	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.70	0.050	0.6439	0.006767	108	81.3	119			
Toluene	0.65	0.050	0.6439	0	100	75	121			
Chlorobenzene	0.64	0.050	0.6439	0	99.6	78.5	120			
1,1-Dichloroethene	0.68	0.050	0.6439	0	106	75.3	115			
Trichloroethene (TCE)	0.61	0.050	0.6439	0	94.7	67.8	119			
Surr: 1,2-Dichloroethane-d4	0.31		0.3220		97.6	70	130			
Surr: 4-Bromofluorobenzene	0.32		0.3220		97.9	70	130			
Surr: Dibromofluoromethane	0.32		0.3220		98.8	70	130			
Surr: Toluene-d8	0.32		0.3220		101	70	130			

Sample ID	1207900-002b msd	SampType:	MSD	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	BatchQC	Batch ID:	R4233	RunNo:	4233					
Prep Date:		Analysis Date:	7/21/2012	SeqNo:	121270	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.67	0.050	0.6439	0.006767	103	81.3	119	4.25	15.7	
Toluene	0.63	0.050	0.6439	0	98.3	75	121	2.14	16.2	
Chlorobenzene	0.65	0.050	0.6439	0	101	78.5	120	1.27	14.9	
1,1-Dichloroethene	0.60	0.050	0.6439	0	93.7	75.3	115	12.0	31.8	
Trichloroethene (TCE)	0.55	0.050	0.6439	0	85.7	67.8	119	10.0	16.5	
Surr: 1,2-Dichloroethane-d4	0.31		0.3220		95.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.31		0.3220		97.7	70	130	0	0	
Surr: Dibromofluoromethane	0.30		0.3220		92.3	70	130	0	0	
Surr: Toluene-d8	0.32		0.3220		100	70	130	0	0	

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBS	Batch ID:	R4379	RunNo:	4379					
Prep Date:		Analysis Date:	7/23/2012	SeqNo:	122014	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBS**	Batch ID: **R4379**	RunNo: **4379**	
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122014**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122014** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.050								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
Trichloropropane	ND	0.10								
chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.6	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		105	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.53		0.5000		105	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122015** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	105	70.7	123			
Toluene	0.96	0.050	1.000	0	95.5	80	120			
Chlorobenzene	0.98	0.050	1.000	0	97.9	70	130			
1,1-Dichloroethene	0.93	0.050	1.000	0	92.5	63.1	148			
Trichloroethene (TCE)	0.88	0.050	1.000	0	88.4	63.2	114			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.5	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		103	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		103	70	130			
Surr: Toluene-d8	0.49		0.5000		97.5	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207940

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207940-007b ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **SWMU 14-12 (1.5-2.** Batch ID: **R4379** RunNo: **4379**

Prep Date: Analysis Date: **7/24/2012** SeqNo: **122016** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	44	2.5	42.92	2.856	95.9	81.3	119			
Toluene	56	2.5	42.92	14.08	97.1	75	121			
Chlorobenzene	42	2.5	42.92	0	97.1	78.5	120			
1,1-Dichloroethene	39	2.5	42.92	0	91.6	75.3	115			
Trichloroethene (TCE)	37	2.5	42.92	0	85.1	67.8	119			
Surr: 1,2-Dichloroethane-d4	20		21.46		92.0	70	130			
Surr: 4-Bromofluorobenzene	20		21.46		93.8	70	130			
Surr: Dibromofluoromethane	22		21.46		101	70	130			
Surr: Toluene-d8	22		21.46		102	70	130			

Sample ID **1207940-007b msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **SWMU 14-12 (1.5-2.** Batch ID: **R4379** RunNo: **4379**

Prep Date: Analysis Date: **7/24/2012** SeqNo: **122017** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	43	2.5	42.92	2.856	93.9	81.3	119	1.96	15.7	
Toluene	54	2.5	42.92	14.08	92.6	75	121	3.49	16.2	
Chlorobenzene	42	2.5	42.92	0	97.0	78.5	120	0.0484	14.9	
1,1-Dichloroethene	37	2.5	42.92	0	85.4	75.3	115	7.02	31.8	
Trichloroethene (TCE)	36	2.5	42.92	0	84.2	67.8	119	1.08	16.5	
Surr: 1,2-Dichloroethane-d4	20		21.46		94.1	70	130	0	0	
Surr: 4-Bromofluorobenzene	20		21.46		92.2	70	130	0	0	
Surr: Dibromofluoromethane	23		21.46		106	70	130	0	0	
Surr: Toluene-d8	21		21.46		99.9	70	130	0	0	

Sample ID **mb-3010** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBS** Batch ID: **3010** RunNo: **4468**

Prep Date: **7/24/2012** Analysis Date: **7/25/2012** SeqNo: **125366** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.0	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

Sample ID **lcs-3010** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSS** Batch ID: **3010** RunNo: **4468**

Prep Date: **7/24/2012** Analysis Date: **7/25/2012** SeqNo: **125367** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.2	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		108	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	lcs-3010	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSS	Batch ID:	3010	RunNo:	4468					
Prep Date:	7/24/2012	Analysis Date:	7/25/2012	SeqNo:	125367	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.50		0.5000		100	70	130			

Sample ID	mb-3010	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBS	Batch ID:	3010	RunNo:	4498					
Prep Date:	7/24/2012	Analysis Date:	7/27/2012	SeqNo:	126123	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		90.7	70	130			
Surr: 4-Bromofluorobenzene	0.59		0.5000		118	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.50		0.5000		99.3	70	130			

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBS	Batch ID:	R4537	RunNo:	4537					
Prep Date:		Analysis Date:	7/30/2012	SeqNo:	127461	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								

Qualifiers:

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBS**	Batch ID: **R4537**	RunNo: **4537**	
Prep Date:	Analysis Date: **7/30/2012**	SeqNo: **127461**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.050								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R4537**	RunNo: **4537**
Prep Date:	Analysis Date: **7/30/2012**	SeqNo: **127461** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.6	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		104	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		89.0	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R4537**	RunNo: **4537**
Prep Date:	Analysis Date: **7/30/2012**	SeqNo: **127466** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.050	1.000	0	91.1	70.7	123			
Toluene	0.98	0.050	1.000	0	98.4	80	120			
Chlorobenzene	0.99	0.050	1.000	0	99.3	70	130			
1,1-Dichloroethene	0.83	0.050	1.000	0	83.3	63.1	148			
Trichloroethene (TCE)	0.79	0.050	1.000	0	79.3	63.2	114			
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		88.3	70	130			
Surr: 4-Bromofluorobenzene	0.56		0.5000		112	70	130			
Surr: Dibromofluoromethane	0.44		0.5000		87.9	70	130			
Surr: Toluene-d8	0.52		0.5000		105	70	130			

Sample ID **mb-3118**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **3118**	RunNo: **4594**
Prep Date: **7/31/2012**	Analysis Date: **8/1/2012**	SeqNo: **129277** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.39		0.5000		77.6	70	130			
Surr: 4-Bromofluorobenzene	0.37		0.5000		73.3	70	130			
Surr: Dibromofluoromethane	0.37		0.5000		73.3	70	130			
Surr: Toluene-d8	0.40		0.5000		80.6	70	130			

Sample ID **lcs-3118**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **3118**	RunNo: **4594**
Prep Date: **7/31/2012**	Analysis Date: **8/1/2012**	SeqNo: **129278** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.43		0.5000		85.4	70	130			
Surr: 4-Bromofluorobenzene	0.36		0.5000		71.6	70	130			
Surr: Dibromofluoromethane	0.41		0.5000		82.0	70	130			
Surr: Toluene-d8	0.41		0.5000		81.9	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120975** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120975** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
ichloroethane	ND	1.0								
richloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.1	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		117	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.0	70	130			
Surr: Toluene-d8	10		10.00		105	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120980** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	84.1	126			
Toluene	22	1.0	20.00	0	109	80	120			
Chlorobenzene	21	1.0	20.00	0	107	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.6	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	89.5	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120980** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.9		10.00		88.5	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **1207711-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120981** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	66.8	128			
Toluene	23	1.0	20.00	0	116	70	130			
Chlorobenzene	21	1.0	20.00	0	104	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	97.9	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	92.2	70	130			
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.1	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.0	70	130			
Surr: Toluene-d8	11		10.00		108	70	130			

Sample ID **1207711-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4233**	RunNo: **4233**
Prep Date:	Analysis Date: **7/20/2012**	SeqNo: **120982** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	66.8	128	0.0297	16.7	
Toluene	22	1.0	20.00	0	110	70	130	4.99	18.7	
Chlorobenzene	21	1.0	20.00	0	104	70	130	0.103	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	91.2	70	130	7.04	16.7	
Trichloroethene (TCE)	19	1.0	20.00	0	94.3	70	130	2.25	17.5	
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	12		10.00		119	70	130	0	0	
Surr: Dibromofluoromethane	9.3		10.00		92.6	70	130	0	0	
Surr: Toluene-d8	10		10.00		104	70	130	0	0	

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122005** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122005** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
ıform	ND	1.0								
ıomethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

ıifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122005** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	11		10.00		105	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4379**	RunNo: **4379**
Prep Date:	Analysis Date: **7/23/2012**	SeqNo: **122008** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	84.1	126			
Toluene	19	1.0	20.00	0	95.5	80	120			
Chlorobenzene	20	1.0	20.00	0	97.9	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	92.5	83	130			
Trichloroethene (TCE)	18	1.0	20.00	0	88.4	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	9.8		10.00		97.5	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**			TestCode: **EPA Method 8260B: VOLATILES**						
Client ID: **PBW**	Batch ID: **R4402**			RunNo: **4402**						
Prep Date:	Analysis Date: **7/24/2012**			SeqNo: **122636**		Units: **µg/L**				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
ı disulfide	ND	10								
ɔn tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

ʻifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4402**	RunNo: **4402**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122636** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4402**	RunNo: **4402**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122639** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.2	84.1	126			
Toluene	20	1.0	20.00	0	102	80	120			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	90.6	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	84.4	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4402**	RunNo: **4402**
Prep Date:	Analysis Date: **7/24/2012**	SeqNo: **122639** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **1207922-010a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4402**	RunNo: **4402**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **122640** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	66.8	128			
Toluene	21	1.0	20.00	0.7840	103	70	130			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	95.6	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	86.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **1207922-010a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4402**	RunNo: **4402**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **122641** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	66.8	128	0.357	16.7	
Toluene	20	1.0	20.00	0.7840	97.4	70	130	4.94	18.7	
Chlorobenzene	19	1.0	20.00	0	96.4	70	130	5.90	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	90.7	70	130	5.30	16.7	
Trichloroethene (TCE)	17	1.0	20.00	0	86.6	70	130	0.772	17.5	
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130	0	0	
Surr: Dibromofluoromethane	10		10.00		103	70	130	0	0	
Surr: Toluene-d8	10		10.00		102	70	130	0	0	

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **125370** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **125370** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **125370** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methylene chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
Trichloropropane	ND	2.0								
chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.9	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.5	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/25/2012**	SeqNo: **125371** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	84.1	126			
Toluene	21	1.0	20.00	0	106	80	120			
Chlorobenzene	20	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	94.8	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	86.4	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	10		10.00		99.7	70	130			
Surr: Toluene-d8	10		10.00		105	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **100ng lcs2** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R4468** RunNo: **4468**

Prep Date: Analysis Date: **7/25/2012** SeqNo: **125372** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	84.1	126			
Toluene	20	1.0	20.00	0	99.6	80	120			
Chlorobenzene	20	1.0	20.00	0	98.3	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	88.2	83	130			
Trichloroethene (TCE)	17	1.0	20.00	0	82.9	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	10		10.00		99.6	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID **1207949-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4468** RunNo: **4468**

Prep Date: Analysis Date: **7/25/2012** SeqNo: **125377** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0.7848	97.9	66.8	128			
Toluene	21	1.0	20.00	0.7920	102	70	130			
Chlorobenzene	21	1.0	20.00	0	104	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.2	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	85.2	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	11		10.00		107	70	130			

Sample ID **1207a22-002ams** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4468** RunNo: **4468**

Prep Date: Analysis Date: **7/26/2012** SeqNo: **125378** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	990	50	1000	0	99.1	70	130			
1,1-Dichloroethene	910	50	1000	0	91.0	70	130			
Trichloroethene (TCE)	870	50	1000	0	86.7	70	130			
Surr: 1,2-Dichloroethane-d4	460		500.0		92.4	70	130			
Surr: 4-Bromofluorobenzene	490		500.0		98.8	70	130			
Surr: Dibromofluoromethane	510		500.0		102	70	130			
Surr: Toluene-d8	500		500.0		101	70	130			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **1207a22-002amsd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC** Batch ID: **R4468** RunNo: **4468**
Prep Date: Analysis Date: **7/26/2012** SeqNo: **125380** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	1000	50	1000	0	101	70	130	1.54	19.5	
1,1-Dichloroethene	870	50	1000	0	86.5	70	130	4.99	16.7	
Trichloroethene (TCE)	850	50	1000	0	85.2	70	130	1.72	17.5	
Surr: 1,2-Dichloroethane-d4	470		500.0		93.1	70	130	0	0	
Surr: 4-Bromofluorobenzene	480		500.0		96.2	70	130	0	0	
Surr: Dibromofluoromethane	520		500.0		104	70	130	0	0	
Surr: Toluene-d8	520		500.0		105	70	130	0	0	

Sample ID **1207949-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC** Batch ID: **R4468** RunNo: **4468**
Prep Date: Analysis Date: **7/25/2012** SeqNo: **125381** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0.7848	97.8	66.8	128	0.104	16.7	
Toluene	20	1.0	20.00	0.7920	96.9	70	130	4.87	18.7	
Chlorobenzene	19	1.0	20.00	0	96.2	70	130	7.41	19.5	
1,1-Dichloroethene	18	1.0	20.00	0	87.7	70	130	3.88	16.7	
[illegible]roethene (TCE)	17	1.0	20.00	0	83.0	70	130	2.51	17.5	
[illegible]: 1,2-Dichloroethane-d4	9.4		10.00		94.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.5		10.00		95.0	70	130	0	0	
Surr: Dibromofluoromethane	11		10.00		107	70	130	0	0	
Surr: Toluene-d8	10		10.00		102	70	130	0	0	

Sample ID **b15** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW** Batch ID: **R4468** RunNo: **4468**
Prep Date: Analysis Date: **7/26/2012** SeqNo: **125426** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								

[illegible]ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **b15**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/26/2012**	SeqNo: **125426** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								

Qualifiers:

*/X	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **b15**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4468**	RunNo: **4468**
Prep Date:	Analysis Date: **7/26/2012**	SeqNo: **125426** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4498**	RunNo: **4498**
Date:	Analysis Date: **7/27/2012**	SeqNo: **126086** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								

fiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R4498**	RunNo: **4498**	
Prep Date:	Analysis Date: **7/27/2012**	SeqNo: **126086**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

.t: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4498**	RunNo: **4498**
Prep Date:	Analysis Date: **7/27/2012**	SeqNo: **126086** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.8	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		117	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	11		10.00		107	70	130			

Sample ID **100ng lcsb**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R4498**	RunNo: **4498**
Prep Date:	Analysis Date: **7/27/2012**	SeqNo: **126090** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	84.1	126			
Toluene	22	1.0	20.00	0	108	80	120			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.7	83	130			
·roethene (TCE)	17	1.0	20.00	0	87.3	76.2	119			
.: 1,2-Dichloroethane-d4	9.5		10.00		94.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID **1207a57-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4498**	RunNo: **4498**
Prep Date:	Analysis Date: **7/27/2012**	SeqNo: **126091** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	1100	50	1000	147.3	97.1	70	130			
Chlorobenzene	1000	50	1000	0	100	70	130			
1,1-Dichloroethene	870	50	1000	0	87.0	70	130			
Trichloroethene (TCE)	850	50	1000	0	85.3	70	130			
Surr: 1,2-Dichloroethane-d4	470		500.0		93.5	70	130			
Surr: 4-Bromofluorobenzene	490		500.0		98.0	70	130			
Surr: Dibromofluoromethane	530		500.0		106	70	130			
Surr: Toluene-d8	520		500.0		104	70	130			

Sample ID **1207a57-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4498**	RunNo: **4498**
Prep Date:	Analysis Date: **7/27/2012**	SeqNo: **126092** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

'fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207a57-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4498**	RunNo: **4498**
Prep Date:	Analysis Date: **7/27/2012**	SeqNo: **126092** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene	1100	50	1000	147.3	95.6	70	130	1.34	18.7	
Chlorobenzene	980	50	1000	0	98.4	70	130	1.66	19.5	
1,1-Dichloroethene	800	50	1000	0	80.4	70	130	7.82	16.7	
Trichloroethene (TCE)	810	50	1000	0	80.6	70	130	5.66	17.5	
Surr: 1,2-Dichloroethane-d4	460		500.0		91.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	500		500.0		99.5	70	130	0	0	
Surr: Dibromofluoromethane	530		500.0		106	70	130	0	0	
Surr: Toluene-d8	520		500.0		104	70	130	0	0	

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R4537**	RunNo: **4537**
Prep Date:	Analysis Date: **7/30/2012**	SeqNo: **127430** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

t: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R4537**	RunNo: **4537**	
Prep Date:	Analysis Date: **7/30/2012**	SeqNo: **127430**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
yl-2-pentanone	ND	10								
lene chloride	ND	3.0								
n-Butylbenzene	ND	1.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	8.9		10.00		89.0	70	130			

fiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml rb** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R4537** RunNo: **4537**

Prep Date: Analysis Date: **7/30/2012** SeqNo: **127430** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **LCSW** Batch ID: **R4537** RunNo: **4537**

Prep Date: Analysis Date: **7/30/2012** SeqNo: **127433** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	91.1	84.1	126			
Toluene	20	1.0	20.00	0	98.4	80	120			
Chlorobenzene	20	1.0	20.00	0	99.3	70	130			
1,1-Dichloroethene	17	1.0	20.00	0	83.3	83	130			
Trichloroethene (TCE)	16	1.0	20.00	0	79.3	76.2	119			
Surr: 1,2-Dichloroethane-d4	8.8		10.00		88.3	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		112	70	130			
Surr: Dibromofluoromethane	8.8		10.00		87.9	70	130			
Surr: Toluene-d8	10		10.00		105	70	130			

Sample ID **1207b41-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4537** RunNo: **4537**

Prep Date: Analysis Date: **7/30/2012** SeqNo: **127434** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	56000	50	1000	57800	-161	66.8	128			SE
Toluene	62000	50	1000	60240	223	70	130			SE
Chlorobenzene	1000	50	1000	0	103	70	130			
1,1-Dichloroethene	830	50	1000	0	83.4	70	130			
Trichloroethene (TCE)	810	50	1000	0	80.8	70	130			
Surr: 1,2-Dichloroethane-d4	430		500.0		87.0	70	130			
Surr: 4-Bromofluorobenzene	500		500.0		100	70	130			
Surr: Dibromofluoromethane	440		500.0		87.4	70	130			
Surr: Toluene-d8	540		500.0		108	70	130			

Sample ID **1207b41-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R4537** RunNo: **4537**

Prep Date: Analysis Date: **7/30/2012** SeqNo: **127435** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	57000	50	1000	57800	-55.7	66.8	128	1.86	16.7	SE
Toluene	59000	50	1000	60240	-131	70	130	5.82	18.7	SE
Chlorobenzene	990	50	1000	0	98.7	70	130	4.19	19.5	
1,1-Dichloroethene	790	50	1000	0	78.8	70	130	5.63	16.7	
Trichloroethene (TCE)	820	50	1000	0	82.2	70	130	1.72	17.5	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **1207b41-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R4537**	RunNo: **4537**
Prep Date:	Analysis Date: **7/30/2012**	SeqNo: **127435** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	450		500.0		89.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	490		500.0		98.0	70	130	0	0	
Surr: Dibromofluoromethane	450		500.0		90.7	70	130	0	0	
Surr: Toluene-d8	520		500.0		103	70	130	0	0	

Qualifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-3024**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBS**	Batch ID: **3024**	RunNo: **4492**	
Prep Date: **7/25/2012**	Analysis Date: **7/27/2012**	SeqNo: **125905**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

ıt: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **mb-3024**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **3024**	RunNo: **4492**
Prep Date: **7/25/2012**	Analysis Date: **7/27/2012**	SeqNo: **125905** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
ıaniline	ND	0.40								
ɒenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	2.9		3.330		87.7	20.1	121			
Surr: 2-Fluorobiphenyl	1.3		1.670		77.6	19	133			
Surr: 2-Fluorophenol	2.0		3.330		60.2	20.2	108			
Surr: 4-Terphenyl-d14	1.3		1.670		78.0	18.9	115			
Surr: Nitrobenzene-d5	1.1		1.670		67.4	20.8	123			
Surr: Phenol-d5	2.4		3.330		70.9	19.8	115			

Sample ID **lcs-3024**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **3024**	RunNo: **4492**
Prep Date: **7/25/2012**	Analysis Date: **7/27/2012**	SeqNo: **125907** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

ıifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207940

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **lcs-3024** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS** Batch ID: **3024** RunNo: **4492**

Prep Date: **7/25/2012** Analysis Date: **7/27/2012** SeqNo: **125907** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	70.7	49.7	98.1			
4-Chloro-3-methylphenol	2.3	0.50	3.330	0	70.3	43.8	89.1			
2-Chlorophenol	2.1	0.20	3.330	0	61.7	41.1	96.9			
1,4-Dichlorobenzene	1.1	0.20	1.670	0	63.5	41	97.4			
2,4-Dinitrotoluene	1.3	0.50	1.670	0	78.9	44.4	104			
N-Nitrosodi-n-propylamine	1.2	0.20	1.670	0	72.4	39.1	86.9			
4-Nitrophenol	2.9	0.25	3.330	0	85.9	44.2	107			
Pentachlorophenol	2.5	0.40	3.330	0	74.5	36.2	80			
Phenol	2.4	0.20	3.330	0	71.3	42.7	92.7			
Pyrene	1.1	0.20	1.670	0	67.5	34.7	98.8			
1,2,4-Trichlorobenzene	1.2	0.20	1.670	0	72.9	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.3		3.330		98.0	20.1	121			
Surr: 2-Fluorobiphenyl	1.2		1.670		74.2	19	133			
Surr: 2-Fluorophenol	1.9		3.330		57.9	20.2	108			
Surr: 4-Terphenyl-d14	1.4		1.670		84.5	18.9	115			
Surr: Nitrobenzene-d5	1.2		1.670		70.6	20.8	123			
Surr: Phenol-d5	2.3		3.330		68.9	19.8	115			

Sample ID **1207922-008Cms** SampType: **MS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **BatchQC** Batch ID: **3024** RunNo: **4492**

Prep Date: **7/25/2012** Analysis Date: **7/27/2012** SeqNo: **125927** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.7	0.40	1.674	0	101	38.6	100			S
4-Chloro-3-methylphenol	2.8	1.0	3.339	0	84.9	35.8	108			
2-Chlorophenol	2.7	0.40	3.339	0	81.4	48.2	96.1			
1,4-Dichlorobenzene	1.2	0.40	1.674	0	73.3	42.5	97.6			
2,4-Dinitrotoluene	1.2	1.0	1.674	0	68.9	51.2	108			
N-Nitrosodi-n-propylamine	ND	0.40	1.674	0	0	31.6	114			S
4-Nitrophenol	2.1	0.50	3.339	0	63.0	22.7	144			
Pentachlorophenol	2.2	0.80	3.339	0	64.8	24	109			
Phenol	3.0	0.40	3.339	0	88.9	33.1	108			
Pyrene	1.6	0.40	1.674	0.2483	83.5	42.7	98.9			
1,2,4-Trichlorobenzene	1.2	0.40	1.674	0	69.7	27.1	118			
Surr: 2,4,6-Tribromophenol	2.2		3.339		67.3	20.1	121			
Surr: 2-Fluorobiphenyl	1.3		1.674		76.2	19	133			
Surr: 2-Fluorophenol	2.4		3.339		71.5	20.2	108			
Surr: 4-Terphenyl-d14	1.5		1.674		90.0	18.9	115			
Surr: Nitrobenzene-d5	0		1.674		0	20.8	123			S
Surr: Phenol-d5	2.8		3.339		83.5	19.8	115			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **1207922-008Cmsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **BatchQC**	Batch ID: **3024**	RunNo: **4492**
Prep Date: **7/25/2012**	Analysis Date: **7/27/2012**	SeqNo: **125928** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.4	0.40	1.671	0	86.7	38.6	100	15.9	20	
4-Chloro-3-methylphenol	2.8	1.0	3.332	0	84.1	35.8	108	1.20	20	
2-Chlorophenol	2.6	0.40	3.332	0	76.5	48.2	96.1	6.31	20	
1,4-Dichlorobenzene	1.2	0.40	1.671	0	70.6	42.5	97.6	3.92	20	
2,4-Dinitrotoluene	1.3	1.0	1.671	0	75.0	51.2	108	8.24	20	
N-Nitrosodi-n-propylamine	ND	0.40	1.671	0	0	31.6	114	0	20	S
4-Nitrophenol	2.0	0.50	3.332	0	61.2	22.7	144	3.20	20	
Pentachlorophenol	2.4	0.80	3.332	0	72.1	24	109	10.3	20	
Phenol	2.7	0.40	3.332	0	80.9	33.1	108	9.61	20	
Pyrene	1.5	0.40	1.671	0.2483	75.5	42.7	98.9	8.58	20	
1,2,4-Trichlorobenzene	1.2	0.40	1.671	0	74.3	27.1	118	6.12	20	
Surr: 2,4,6-Tribromophenol	2.3		3.332		69.8	20.1	121	0	0	
Surr: 2-Fluorobiphenyl	1.2		1.671		70.5	19	133	0	0	
Surr: 2-Fluorophenol	2.4		3.332		71.0	20.2	108	0	0	
Surr: 4-Terphenyl-d14	1.4		1.671		84.2	18.9	115	0	0	
Surr: Nitrobenzene-d5	1.2		1.671		74.7	20.8	123	0	0	
Surr: Phenol-d5	2.7		3.332		80.4	19.8	115	0	0	

Sample ID **mb-3046**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **3046**	RunNo: **4555**
Prep Date: **7/26/2012**	Analysis Date: **7/31/2012**	SeqNo: **127860** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207940

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	mb-3046	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles
Client ID:	PBS	Batch ID:	3046	RunNo:	4555
Prep Date:	7/26/2012	Analysis Date:	7/31/2012	SeqNo:	127860 Units: mg/Kg

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **mb-3046**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **3046**	RunNo: **4555**
Prep Date: **7/26/2012**	Analysis Date: **7/31/2012**	SeqNo: **127860** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	1.6		3.330		49.3	20.1	121			
Surr: 2-Fluorobiphenyl	0.71		1.670		42.7	19	133			
Surr: 2-Fluorophenol	1.2		3.330		34.6	20.2	108			
Surr: 4-Terphenyl-d14	0.73		1.670		43.6	18.9	115			
Surr: Nitrobenzene-d5	0.67		1.670		39.9	20.8	123			
Surr: Phenol-d5	1.3		3.330		38.0	19.8	115			

Sample ID **lcs-3046**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **3046**	RunNo: **4555**
Prep Date: **7/26/2012**	Analysis Date: **7/31/2012**	SeqNo: **127861** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	70.9	49.7	98.1			
4-Chloro-3-methylphenol	2.5	0.50	3.330	0	74.2	43.8	89.1			
2-Chlorophenol	2.2	0.20	3.330	0	66.0	41.1	96.9			
1,4-Dichlorobenzene	1.0	0.20	1.670	0	60.6	41	97.4			
2,4-Dinitrotoluene	1.5	0.50	1.670	0	89.9	44.4	104			
N-Nitrosodi-n-propylamine	1.3	0.20	1.670	0	74.9	39.1	86.9			
4-Nitrophenol	3.0	0.25	3.330	0	91.2	44.2	107			
Pentachlorophenol	2.6	0.40	3.330	0	78.4	36.2	80			
Phenol	2.3	0.20	3.330	0	70.2	42.7	92.7			
Pyrene	1.1	0.20	1.670	0	68.4	34.7	98.8			
1,2,4-Trichlorobenzene	1.2	0.20	1.670	0	70.8	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.0		3.330		91.5	20.1	121			
Surr: 2-Fluorobiphenyl	1.2		1.670		71.4	19	133			
Surr: 2-Fluorophenol	1.9		3.330		56.8	20.2	108			
Surr: 4-Terphenyl-d14	1.3		1.670		76.8	18.9	115			
Surr: Nitrobenzene-d5	1.2		1.670		69.2	20.8	123			
Surr: Phenol-d5	2.4		3.330		71.7	19.8	115			

Qualifiers:

- . Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207940

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207940-019Cms** SampType: **MS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **SWMU 14-19 (0-0.5')** Batch ID: **3046** RunNo: **4555**

Prep Date: **7/26/2012** Analysis Date: **7/31/2012** SeqNo: **127874** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.4	0.99	1.660	0	85.1	38.6	100			
4-Chloro-3-methylphenol	2.6	2.5	3.310	0	78.4	35.8	108			
2-Chlorophenol	2.7	0.99	3.310	0	81.1	48.2	96.1			
1,4-Dichlorobenzene	ND	0.99	1.660	0	52.6	42.5	97.6			
2,4-Dinitrotoluene	ND	2.5	1.660	0	85.7	51.2	108			
N-Nitrosodi-n-propylamine	1.3	0.99	1.660	0	80.5	31.6	114			
4-Nitrophenol	3.1	1.2	3.310	0	93.7	22.7	144			
Pentachlorophenol	2.3	2.0	3.310	0	68.5	24	109			
Phenol	2.6	0.99	3.310	0	77.6	33.1	108			
Pyrene	1.3	0.99	1.660	0	76.4	42.7	98.9			
1,2,4-Trichlorobenzene	1.3	0.99	1.660	0	75.7	27.1	118			
Surr: 2,4,6-Tribromophenol	3.2		3.310		95.8	20.1	121			
Surr: 2-Fluorobiphenyl	1.5		1.660		92.9	19	133			
Surr: 2-Fluorophenol	2.5		3.310		76.5	20.2	108			
Surr: 4-Terphenyl-d14	1.7		1.660		102	18.9	115			
Surr: Nitrobenzene-d5	1.5		1.660		91.6	20.8	123			
Surr: Phenol-d5	2.9		3.310		87.9	19.8	115			

Sample ID **1207940-019Cmsd** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **SWMU 14-19 (0-0.5')** Batch ID: **3046** RunNo: **4555**

Prep Date: **7/26/2012** Analysis Date: **7/31/2012** SeqNo: **127875** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.5	1.0	1.667	0	88.2	38.6	100	3.97	20	
4-Chloro-3-methylphenol	2.5	2.5	3.323	0	76.3	35.8	108	2.32	20	
2-Chlorophenol	2.7	1.0	3.323	0	81.7	48.2	96.1	1.14	20	
1,4-Dichlorobenzene	ND	1.0	1.667	0	53.7	42.5	97.6	0	20	
2,4-Dinitrotoluene	ND	2.5	1.667	0	85.3	51.2	108	0	20	
N-Nitrosodi-n-propylamine	1.5	1.0	1.667	0	90.9	31.6	114	12.5	20	
4-Nitrophenol	2.8	1.2	3.323	0	83.9	22.7	144	10.6	20	
Pentachlorophenol	2.3	2.0	3.323	0	70.3	24	109	3.07	20	
Phenol	2.7	1.0	3.323	0	80.4	33.1	108	3.94	20	
Pyrene	1.4	1.0	1.667	0	83.0	42.7	98.9	8.66	20	
1,2,4-Trichlorobenzene	1.3	1.0	1.667	0	80.3	27.1	118	6.28	20	
Surr: 2,4,6-Tribromophenol	3.5		3.323		106	20.1	121	0	0	
Surr: 2-Fluorobiphenyl	1.6		1.667		96.8	19	133	0	0	
Surr: 2-Fluorophenol	2.5		3.323		75.0	20.2	108	0	0	
Surr: 4-Terphenyl-d14	1.8		1.667		108	18.9	115	0	0	
Surr: Nitrobenzene-d5	1.5		1.667		90.8	20.8	123	0	0	
Surr: Phenol-d5	3.1		3.323		91.9	19.8	115	0	0	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **mb-2989**	SampType: **MBLK**		TestCode: **EPA Method 8270C: Semivolatiles**		
Client ID: **PBW**	Batch ID: **2989**		RunNo: **4400**		
Prep Date: **7/24/2012**	Analysis Date: **7/24/2012**		SeqNo: **122513**	Units: **µg/L**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
enzyl phthalate	ND	10								
azole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-2989**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **2989**	RunNo: **4400**
Prep Date: **7/24/2012**	Analysis Date: **7/24/2012**	SeqNo: **122513** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	20								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	170		200.0		85.4	44.2	126			
Surr: 2-Fluorobiphenyl	86		100.0		85.5	37	114			
Surr: 2-Fluorophenol	120		200.0		61.4	23.4	98			
Surr: 4-Terphenyl-d14	79		100.0		79.3	41.3	116			
Surr: Nitrobenzene-d5	84		100.0		84.2	39.5	118			
Surr: Phenol-d5	110		200.0		53.2	20.9	95.9			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **lcs-2989**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **2989**	RunNo: **4400**
Prep Date: **7/24/2012**	Analysis Date: **7/24/2012**	SeqNo: **122514** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	68	10	100.0	0	68.1	38.2	99.4			
4-Chloro-3-methylphenol	140	10	200.0	0	71.3	35.5	108			
2-Chlorophenol	130	10	200.0	0	62.6	29.8	106			
1,4-Dichlorobenzene	47	10	100.0	0	46.8	32.6	91.5			
2,4-Dinitrotoluene	83	10	100.0	0	82.7	44.7	112			
N-Nitrosodi-n-propylamine	70	10	100.0	0	70.3	38.5	105			
4-Nitrophenol	95	10	200.0	0	47.3	11.6	73.1			
Pentachlorophenol	120	20	200.0	0	61.2	20.2	93			
Phenol	84	10	200.0	0	42.0	23	66.1			
Pyrene	71	10	100.0	0	71.2	40.1	101			
1,2,4-Trichlorobenzene	54	10	100.0	0	53.7	37.7	99.1			
Surr: 2,4,6-Tribromophenol	160		200.0		81.9	44.2	126			
Surr: 2-Fluorobiphenyl	73		100.0		72.8	37	114			
Surr: 2-Fluorophenol	98		200.0		49.2	23.4	98			
Surr: 4-Terphenyl-d14	71		100.0		70.6	41.3	116			
Surr: Nitrobenzene-d5	65		100.0		65.1	39.5	118			
Surr: Phenol-d5	91		200.0		45.5	20.9	95.9			

ple ID **lcsd-2989**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **2989**	RunNo: **4400**
Prep Date: **7/24/2012**	Analysis Date: **7/24/2012**	SeqNo: **122515** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	70	10	100.0	0	69.9	38.2	99.4	2.61	20	
4-Chloro-3-methylphenol	160	10	200.0	0	81.3	35.5	108	13.1	20	
2-Chlorophenol	110	10	200.0	0	55.6	29.8	106	11.9	20	
1,4-Dichlorobenzene	47	10	100.0	0	46.8	32.6	91.5	0.0854	20	
2,4-Dinitrotoluene	91	10	100.0	0	91.2	44.7	112	9.75	20	
N-Nitrosodi-n-propylamine	75	10	100.0	0	74.6	38.5	105	5.82	20	
4-Nitrophenol	92	10	200.0	0	46.1	11.6	73.1	2.55	20	
Pentachlorophenol	110	20	200.0	0	57.5	20.2	93	6.30	20	
Phenol	83	10	200.0	0	41.5	23	66.1	1.15	20	
Pyrene	71	10	100.0	0	71.2	40.1	101	0	20	
1,2,4-Trichlorobenzene	56	10	100.0	0	55.5	37.7	99.1	3.33	20	
Surr: 2,4,6-Tribromophenol	150		200.0		75.1	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	73		100.0		73.1	37	114	0	0	
Surr: 2-Fluorophenol	81		200.0		40.7	23.4	98	0	0	
Surr: 4-Terphenyl-d14	80		100.0		79.8	41.3	116	0	0	
Surr: Nitrobenzene-d5	70		100.0		70.1	39.5	118	0	0	
Surr: Phenol-d5	88		200.0		44.2	20.9	95.9	0	0	

fiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

WO#: **1207940**

Hall Environmental Analysis Laboratory, Inc.

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-3130	SampType:	MBLK		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	3130		RunNo:	4597				
Prep Date:	8/1/2012	Analysis Date:	8/2/2012		SeqNo:	128924	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-3130	SampType:	LCS		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	3130		RunNo:	4597				
Prep Date:	8/1/2012	Analysis Date:	8/2/2012		SeqNo:	128925	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1667	0	97.2	80	120			

Sample ID	1207940-002CMS	SampType:	MS		TestCode:	EPA Method 7471: Mercury				
Client ID:	SWMU 14-10 (1.5-2.	Batch ID:	3130		RunNo:	4597				
Prep Date:	8/1/2012	Analysis Date:	8/2/2012		SeqNo:	128936	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.60	0.16	0.1647	0.2056	237	75	125			S

Sample ID	1207940-002CMSD	SampType:	MSD		TestCode:	EPA Method 7471: Mercury				
Client ID:	SWMU 14-10 (1.5-2.	Batch ID:	3130		RunNo:	4597				
Prep Date:	8/1/2012	Analysis Date:	8/2/2012		SeqNo:	128937	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.60	0.16	0.1648	0.2056	240	75	125	1.01	20	S

Sample ID	MB-3131	SampType:	MBLK		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	3131		RunNo:	4597				
Prep Date:	8/1/2012	Analysis Date:	8/2/2012		SeqNo:	128955	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-3131	SampType:	LCS		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	3131		RunNo:	4597				
Prep Date:	8/1/2012	Analysis Date:	8/2/2012		SeqNo:	128956	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1667	0	93.3	80	120			

Sample ID	1207B18-001BMS	SampType:	MS		TestCode:	EPA Method 7471: Mercury				
Client ID:	BatchQC	Batch ID:	3131		RunNo:	4597				
Prep Date:	8/1/2012	Analysis Date:	8/2/2012		SeqNo:	128971	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.21	0.033	0.1648	0.06444	87.3	75	125			

Qualifiers:

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- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

.t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	**1207B18-001BMSD**	SampType: **MSD**		TestCode: **EPA Method 7471: Mercury**	
Client ID:	**BatchQC**	Batch ID: **3131**		RunNo: **4597**	
Prep Date:	**8/1/2012**	Analysis Date: **8/2/2012**		SeqNo: **128972**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.20	0.033	0.1651	0.06444	84.5	75	125	2.10	20	

'fiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	MB-3008	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS	Batch ID:	3008	RunNo:	4553				
Prep Date:	7/24/2012	Analysis Date:	7/31/2012	SeqNo:	127775	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID	LCS-3008	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	LCSS	Batch ID:	3008	RunNo:	4553				
Prep Date:	7/24/2012	Analysis Date:	7/31/2012	SeqNo:	127776	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	25	2.5	25.00	0	99.1	80	120			
Arsenic	25	2.5	25.00	0	99.4	80	120			
Barium	23	0.10	25.00	0	91.4	80	120			
Beryllium	25	0.15	25.00	0	99.8	80	120			
Cadmium	24	0.10	25.00	0	95.2	80	120			
Chromium	23	0.30	25.00	0	91.3	80	120			
Lead	23	0.25	25.00	0	91.5	80	120			
Manganese	23	0.10	25.00	0	90.9	80	120			
Nickel	22	0.50	25.00	0	89.6	80	120			
Selenium	27	2.5	25.00	0	107	80	120			
Vanadium	24	2.5	25.00	0	94.7	80	120			
Zinc	23	2.5	25.00	0.7005	90.4	80	120			

Sample ID	MB-3008	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS	Batch ID:	3008	RunNo:	4605				
Prep Date:	7/24/2012	Analysis Date:	8/1/2012	SeqNo:	129181	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cobalt	ND	0.30								
Iron	1.0	1.0								
Silver	ND	0.25								

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207940

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	LCS-3008	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	LCSS	Batch ID:	3008	RunNo:	4605					
Prep Date:	7/24/2012	Analysis Date:	8/1/2012	SeqNo:	129182	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Cobalt	25	0.30	25.00	0	98.5	80	120			
Iron	25	1.0	25.00	1.039	96.0	80	120			B
Silver	5.1	0.25	5.000	0.05000	101	80	120			

Sample ID	1207940-020CMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	SWMU 14-19 (1.5-2.	Batch ID:	3008	RunNo:	4605					
Prep Date:	7/24/2012	Analysis Date:	8/1/2012	SeqNo:	129201	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	12	24.88	0	47.5	75	125			S
Arsenic	24	12	24.88	0	97.0	75	125			
Beryllium	26	0.75	24.88	0.8069	99.9	75	125			
Cadmium	24	0.50	24.88	0	95.6	75	125			
Chromium	38	1.5	24.88	11.91	106	75	125			
Cobalt	28	1.5	24.88	4.819	95.1	75	125			
Lead	29	1.2	24.88	4.128	99.7	75	125			
Nickel	32	2.5	24.88	8.015	95.1	75	125			
[illegible]um	17	12	24.88	0	67.6	75	125			S
[illegible]	4.6	1.2	4.976	0	93.1	75	125			
Vanadium	50	12	24.88	21.23	117	75	125			
Zinc	61	12	24.88	33.83	108	75	125			

Sample ID	1207940-020CMSD	SampType:	MSD	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	SWMU 14-19 (1.5-2.	Batch ID:	3008	RunNo:	4605					
Prep Date:	7/24/2012	Analysis Date:	8/1/2012	SeqNo:	129202	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	12	24.62	0	38.2	75	125	0	20	SR
Arsenic	21	12	24.62	0	83.9	75	125	15.5	20	
Beryllium	23	0.75	24.62	0.8069	92.2	75	125	8.77	20	
Cadmium	22	0.50	24.62	0	88.1	75	125	9.20	20	
Chromium	33	1.5	24.62	11.91	87.6	75	125	13.1	20	
Cobalt	25	1.5	24.62	4.819	83.8	75	125	11.2	20	
Lead	28	1.2	24.62	4.128	95.3	75	125	4.83	20	
Nickel	28	2.5	24.62	8.015	80.0	75	125	13.3	20	
Selenium	18	12	24.62	0	74.2	75	125	8.38	20	S
Silver	4.1	1.2	4.924	0	84.1	75	125	11.3	20	
Vanadium	46	12	24.62	21.23	102	75	125	8.17	20	
Zinc	51	12	24.62	33.83	69.2	75	125	17.5	20	S

[illegible]ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207940

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	MB-3009	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	PBS	Batch ID:	3009	RunNo:	4698					
Prep Date:	7/24/2012	Analysis Date:	8/6/2012	SeqNo:	132140	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	1.0								

Sample ID	LCS-3009	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	LCSS	Batch ID:	3009	RunNo:	4698					
Prep Date:	7/24/2012	Analysis Date:	8/6/2012	SeqNo:	132141	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	26	1.0	25.00	0.9555	99.3	80	120			

Sample ID	MB-3009	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	PBS	Batch ID:	3009	RunNo:	4699					
Prep Date:	7/24/2012	Analysis Date:	8/5/2012	SeqNo:	132220	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID	LCS-3009	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	LCSS	Batch ID:	3009	RunNo:	4699					
Prep Date:	7/24/2012	Analysis Date:	8/5/2012	SeqNo:	132221	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	28	2.5	25.00	0	114	80	120			
Arsenic	29	2.5	25.00	0	117	80	120			
Barium	27	0.10	25.00	0	107	80	120			
Beryllium	29	0.15	25.00	0.01250	117	80	120			
Cadmium	27	0.10	25.00	0	110	80	120			
Chromium	26	0.30	25.00	0	106	80	120			
Cobalt	29	0.30	25.00	0	115	80	120			
Lead	27	0.25	25.00	0	110	80	120			

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1207940

21-Aug-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	LCS-3009	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	LCSS	Batch ID:	3009	RunNo:	4699					
Prep Date:	7/24/2012	Analysis Date:	8/5/2012	SeqNo:	132221	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Manganese	26	0.10	25.00	0.07300	106	80	120			
Nickel	26	0.50	25.00	0	105	80	120			
Selenium	30	2.5	25.00	0	121	80	120			S
Silver	5.4	0.25	5.000	0	108	80	120			
Vanadium	27	2.5	25.00	0.07050	109	80	120			
Zinc	29	2.5	25.00	0	116	80	120			

Sample ID	1207917-005CMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	BatchQC	Batch ID:	3009	RunNo:	4699					
Prep Date:	7/24/2012	Analysis Date:	8/5/2012	SeqNo:	132249	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	21	12	23.84	0	89.4	75	125			
Beryllium	24	0.75	23.84	0.6761	97.6	75	125			
Cadmium	22	0.50	23.84	0	90.6	75	125			
Chromium	29	1.5	23.84	8.850	84.7	75	125			
Cobalt	26	1.5	23.84	4.445	90.6	75	125			
[illegible]	23	1.2	23.84	3.311	82.6	75	125			
[illegible]	27	2.5	23.84	6.181	86.9	75	125			
Silver	4.0	1.2	4.768	0	83.8	75	125			

Sample ID	1207917-005CMSD	SampType:	MSD	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	BatchQC	Batch ID:	3009	RunNo:	4699					
Prep Date:	7/24/2012	Analysis Date:	8/5/2012	SeqNo:	132250	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	24	12	24.91	0	94.6	75	125	9.99	20	
Beryllium	25	0.75	24.91	0.6761	98.4	75	125	5.04	20	
Cadmium	23	0.50	24.91	0	90.6	75	125	4.33	20	
Chromium	32	1.5	24.91	8.850	94.1	75	125	10.6	20	
Cobalt	27	1.5	24.91	4.445	91.3	75	125	4.29	20	
Lead	25	1.2	24.91	3.311	87.3	75	125	8.61	20	
Nickel	29	2.5	24.91	6.181	91.7	75	125	7.56	20	
Silver	4.4	1.2	4.982	0	88.1	75	125	9.44	20	

Sample ID	1207917-005CMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	BatchQC	Batch ID:	3009	RunNo:	4734					
Prep Date:	7/24/2012	Analysis Date:	8/8/2012	SeqNo:	133485	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	13	12	23.84	0	54.1	75	125			S
Vanadium	43	12	23.84	31.42	47.7	75	125			S

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1207940**

21-Aug-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1207917-005CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **BatchQC** Batch ID: **3009** RunNo: **4734**

Prep Date: **7/24/2012** Analysis Date: **8/8/2012** SeqNo: **133486** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	14	12	24.91	0	57.7	75	125	10.9	20	S
Vanadium	55	12	24.91	31.42	93.0	75	125	24.2	20	R

Sample ID **1207917-005CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **BatchQC** Batch ID: **3009** RunNo: **4816**

Prep Date: **7/24/2012** Analysis Date: **8/10/2012** SeqNo: **135933** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	13	23.84	3.961	28.4	75	125			S
Zinc	35	13	23.84	16.80	76.6	75	125			

Sample ID **1207917-005CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **BatchQC** Batch ID: **3009** RunNo: **4816**

Prep Date: **7/24/2012** Analysis Date: **8/10/2012** SeqNo: **135934** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	13	24.91	3.961	34.3	75	125	0	20	S
Zinc	39	13	24.91	16.80	90.3	75	125	11.4	20	

Qualifiers:

- */X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1207940**

Received by/date: 07/20/12

Logged By: **Ashley Gallegos** 7/20/2012 2:26:00 PM

Completed By: **Ashley Gallegos** 7/20/2012 2:44:32 PM

Reviewed By: 07/20/12

Chain of Custody

1.	Were seals intact?	Yes	No	Not Present ✔
2.	Is Chain of Custody complete?	Yes ✔	No	Not Present
3.	How was the sample delivered?	Client		

Log In

4.	Coolers are present? (see 19. for cooler specific information)	Yes ✔	No	NA
5.	Was an attempt made to cool the samples?	Yes ✔	No	NA
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
7.	Sample(s) in proper container(s)?	Yes ✔	No	
8.	Sufficient sample volume for indicated test(s)?	Yes ✔	No	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
10.	Was preservative added to bottles?	Yes	No ✔	NA
11.	VOA vials have zero headspace?	Yes	No	No VOA Vials ✔
12.	Were any sample containers received broken?	Yes	No ✔	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH: 4 3
14.	Are matrices correctly identified on Chain of Custody?	Yes ✔	No	(<2 or >12 unless noted)
15.	Is it clear what analyses were requested?	Yes ✔	No	Adjusted? 0 0
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes No NA ✔

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.0	Good	Not Present			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0227
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 3.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1207140	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
7/19/12	1100	SOIL	SWMU 14-10 (0-0.5')	2 ENCORES	—	-001										X						
				2 VIALS	MEOH											X						
				2 JARS	—											X	X	X	X			
	1105	SOIL	SWMU 14-10 (1.5-2.0')	2 ENCORES	—	-002										X						
				2 VIALS	MEOH											X						
				2 JARS	=											X	X	X	X			
	1127	SOIL	SWMU 14-8 (0-0.5')	2 ENCORES	—	-003										X						
				2 VIALS	MEOH											X						
				2 JARS	—											X	X	X	X			
	1140	SOIL	SWMU 14-8 (1.5-2.0')	2 ENCORES	—	-004										X						
				2 VIALS	MEOH											X						
				2 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/20/12	1426			7/20/12	1426
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE
On Ice: [X] Yes [ ] No
Sample Temperature: 3°

HALL ENVIRONMENTAL ANALYSIS LABORATORY
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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1206146
7/19/12	1140	SOIL	SWMU 14-8 (1.5-2.0') DUP	2 ENCORES	—	-005
				2 VIALS	MeOH	
				2 JARS	—	
	1205		SWMU 14-12 (0-0.5')	2 ENCORES	~~MeOH~~ —	-006
				2 VIALS	MeOH	
				2 JARS	—	
	1212		SWMU 14-12 (1.5-2.0')	2 ENCORES	—	-007
				2 VIALS	MeOH	
				2 JARS	—	
	1236		SWMU 14-13 (0-0.5')	2 ENCORES	—	-008
				2 VIALS	MeOH	
				2 JARS	—	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			

Date: 7/20/12 Time: 1426 Relinquished by: [signature] Received by: [signature] Date: 7/20/12 Time: 1426
Date: Time: Relinquished by: Received by: Date: Time:

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU NO. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 4.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1208146	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
7/19/12	1245	SOIL	SWMU 14-13 (1.5-2.0')	2 ENCORES	—	-009										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1307		SWMU 14-14 (0-0.5')	2 ENCORES	—	-010										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1312		SWMU 14-14 (1.5-2.0')	2 ENCORES	—	-011										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1333		SWMU 14-11 (0-0.5')	2 ENCORES	—	-012										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/20/12	1426			7/20/12	1426
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☑ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE
On Ice: ☐ Yes ☐ No
Sample Temperature: 5.6

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1204	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
7/19/12	1338	SOIL	SWMU 14-11 (1.5-2.0)	2 ENCORES	—	-013										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1408		SWMU 14-18 (0-0.5')	2 ENCORES	—	-014										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1415		SWMU 14-18 (1.5-2.0)	2 ENCORES	—	-015										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			
	1500		SWMU 14-5 (0-0.5')	2 ENCORES	—	-016										X						
				2 VIALS	MeOH											X						
				2 JARS	—											X	X	X	X			

Date: 7/20/12 Time: 1426 Relinquished by: — Received by: — Date: 7/20/12 Time: 1426

Date: Time: Relinquished by: Received by: Date: Time:

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING, SW, INC
GALLUP REFINERY
Mailing Address: ROUTE 3, BOX 7
GALLUP NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)
Accreditation ☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE
On Ice: ☐ Yes ☐ No
Sample Temperature: 3 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No 1206240	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
7/19/12	1500	SOIL	SWMU 14-5 (0-0.5')	2 ENCORES	—	-017										X						
			DUP	2 VIALS	MEOH											X						
				2 JARS	—											X	X	X	X			
	1506		SWMU 14-5 (1.5-2.0')	2 ENCORES	—	-018										X						
				2 VIALS	MEOH											X						
				2 JARS	—											X	X	X	X			
	1526		SWMU 14-19 (0-0.5')	2 ENCORES	—	-019										X						
				2 VIALS	MEOH											X						
				2 JARS	—											X	X	X	X			
	1533		SWMU 14-19 (1.5-2.0')	2 ENCORES	—	-020										X						
				2 VIALS	MEOH											X						
				2 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/20/12	1426			7/20/12	1426
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 2.5

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Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1206740	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
7/19/12	1611	SOIL	SWMU 14-17 (0-0.5')	2 ENCORES	—	-021										X						
				2 VIALS	MEOH											X						
				1 JAR	—											X	X	X	X			
	1618		SWMU 14-17 (1.5-2.0)	2 ENCORES	—	-022										X						
				2 VIALS	MEOH											X						
				1 JAR	—											X	X	X	X			
	1645		SWMU 14-16 (0-0.5')	2 ENCORES	—	-023										X						
				2 VIALS	MeOH											X						
				1 JAR	-											X	X	X	X			
	1651		SWMU 14-16 (1.5-2.0)	2 ENCORES	—	-024										X						
				2 VIALS	MEOH											X						
				1 JAR	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/20/12	1426			7/24/12	1426
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX T
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROCH-RBS
QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☑ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH-RBS
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 3

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1206490
7/19/12	1714	SOIL	SWMU 14-15 (0-0.5')	2 ENCORES	—	-025
				2 VIALS	MeOH	
				1 JAR	—	
	1719		SWMU 14-15 (1.5-2.0')	2 ENCORES	—	-026
				2 VIALS	MeOH	
				1 JAR	—	
	1750		SWMU 14-20 (0-0.5')	2 ENCORES	—	-027
				2 VIALS	MeOH	
				1 JAR	—	
	1750		SWMU 14-20 (0-0.5') DUP	2 ENCORES	—	-028
				2 VIALS	MeOH	
				1 JAR	—	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			

Date: 7/20/12 Time: 1426 Relinquished by:
Received by: Date 7/21/12 Time 1426
Date: Time: Relinquished by:
Received by: Date Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☐ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE
On Ice: ☒ Yes ☐ No
Sample Temperature: 3.2

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www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1207946	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	TPH	METALS	DISSOLVED METALS		Air Bubbles (Y or N)
7/19/12	1000	WATER	SWMU 14-2 GW	6 VOA	HCL & NEAT	-029										X		X				
				1 LAMBER	—												X					
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NAOH														X			
				1 PLASTIC	HNO_3															X		
	1800	WATER	FB071912	6 VOA	HCL & NEAT	-030										X		X				
				1 LAMBER	-												X					
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NAOH														X			

Date: 7/20/12 Time: 1426 Relinquished by: [signature]
Date: Time: Relinquished by:

Received by: [signature] Date: 7/21/12 Time: 1426
Received by: Date: Time:

Remarks:

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Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☑ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE
On Ice: ☑ Yes ☐ No
Sample Temperature: 3.2

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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1208516
7/9/12	1815	WATER	EB071912	6 VOA	HCL & NEAT	-031
				1 L AMBER	—	
				1 PLASTIC	HNO_3	
				1 PLASTIC	NAOH	
7/19/12	—	WATER	TRIP BLANK	VOA	HCL	-032
			MEOH BLANK			-033
					07/26/12	
			MEOH Blank			-034

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	TPH	METALS			Air Bubbles (Y or N)
									X		X				
										X					
												X			
												X			
									X						

Date:	Time:	Relinquished by:	Received by:	Date	Time
7/20/12	1426			7/20/12	1426
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

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HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 14, 2012

Scott Crouch
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.14 OrderNo.: 1210582

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 7 sample(s) on 10/11/2012 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued October 30, 2012.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-6 (0-0.5')
Project: SWMU NO.14
Collection Date: 10/9/2012 1:35:00 PM
Lab ID: 1210582-001
Matrix: SOIL
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/12/2012 10:36:48 AM
Motor Oil Range Organics (MRO)	ND	52		mg/Kg	1	10/12/2012 10:36:48 AM
Surr: DNOP	104	77.6-140		%REC	1	10/12/2012 10:36:48 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/12/2012 6:01:43 PM
Surr: BFB	105	84-116		%REC	1	10/12/2012 6:01:43 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 4:59:51 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/16/2012 5:38:30 PM
Arsenic	ND	12		mg/Kg	5	10/16/2012 5:38:30 PM
Barium	350	1.0		mg/Kg	10	10/17/2012 2:56:55 PM
Beryllium	1.0	0.75		mg/Kg	5	10/16/2012 5:38:30 PM
Cadmium	ND	0.50		mg/Kg	5	10/16/2012 5:38:30 PM
Chromium	9.7	1.5		mg/Kg	5	10/16/2012 5:38:30 PM
Cobalt	5.0	1.5		mg/Kg	5	10/16/2012 5:38:30 PM
Iron	15000	500		mg/Kg	500	10/17/2012 2:59:21 PM
Lead	6.4	1.2		mg/Kg	5	10/16/2012 5:38:30 PM
Manganese	420	1.0		mg/Kg	10	10/17/2012 2:56:55 PM
Nickel	8.2	2.5		mg/Kg	5	10/16/2012 5:38:30 PM
Selenium	ND	12		mg/Kg	5	10/23/2012 7:39:07 PM
Silver	ND	1.2		mg/Kg	5	10/16/2012 5:38:30 PM
Vanadium	17	12		mg/Kg	5	10/16/2012 5:38:30 PM
Zinc	17	12		mg/Kg	5	10/16/2012 5:38:30 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Acenaphthylene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Aniline	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Anthracene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Azobenzene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Benzoic acid	ND	1.0		mg/Kg	1	10/12/2012 6:23:08 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-6 (0-0.5')
Project: SWMU NO.14
Collection Date: 10/9/2012 1:35:00 PM
Lab ID: 1210582-001 **Matrix:** SOIL **Received Date:** 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/12/2012 6:23:08 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Carbazole	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/12/2012 6:23:08 PM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/12/2012 6:23:08 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/12/2012 6:23:08 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Chrysene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/12/2012 6:23:08 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	10/12/2012 6:23:08 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Dibenzofuran	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/12/2012 6:23:08 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/12/2012 6:23:08 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/12/2012 6:23:08 PM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/12/2012 6:23:08 PM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/12/2012 6:23:08 PM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/12/2012 6:23:08 PM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/12/2012 6:23:08 PM
Fluoranthene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Fluorene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Hexachloroethane	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Isophorone	ND	1.0		mg/Kg	1	10/12/2012 6:23:08 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
2-Methylphenol	ND	1.0		mg/Kg	1	10/12/2012 6:23:08 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Naphthalene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-6 (0-0.5')
Collection Date: 10/9/2012 1:35:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
3-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/12/2012 6:23:08 PM
Nitrobenzene	ND	1.0		mg/Kg	1	10/12/2012 6:23:08 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/12/2012 6:23:08 PM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/12/2012 6:23:08 PM
Phenanthrene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Phenol	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Pyrene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Pyridine	ND	1.0		mg/Kg	1	10/12/2012 6:23:08 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 6:23:08 PM
Surr: 2,4,6-Tribromophenol	51.9	21.3-145		%REC	1	10/12/2012 6:23:08 PM
Surr: 2-Fluorobiphenyl	50.9	20-131		%REC	1	10/12/2012 6:23:08 PM
Surr: 2-Fluorophenol	48.4	11.9-130		%REC	1	10/12/2012 6:23:08 PM
Surr: 4-Terphenyl-d14	48.3	25.1-149		%REC	1	10/12/2012 6:23:08 PM
Surr: Nitrobenzene-d5	48.5	25.6-137		%REC	1	10/12/2012 6:23:08 PM
Surr: Phenol-d5	51.0	20.3-132		%REC	1	10/12/2012 6:23:08 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: RAA
Benzene	0.00291	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Toluene	0.00336	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Ethylbenzene	0.00157	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Xylenes, Total	0.00786	0.00201		mg/Kg	1	10/11/2012 4:41:54 PM
Methyl tert-butyl ether (MTBE)	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,2,4-Trimethylbenzene	0.00104	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,3,5-Trimethylbenzene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,2-Dichloroethane (EDC)	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,2-Dibromoethane (EDB)	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Naphthalene	ND	0.00201		mg/Kg	1	10/11/2012 4:41:54 PM
1-Methylnaphthalene	ND	0.00402		mg/Kg	1	10/11/2012 4:41:54 PM
2-Methylnaphthalene	ND	0.00402		mg/Kg	1	10/11/2012 4:41:54 PM
Acetone	0.0973	0.0101		mg/Kg	1	10/11/2012 4:41:54 PM
Bromobenzene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Bromodichloromethane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Bromoform	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Bromomethane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
2-Butanone	ND	0.0101		mg/Kg	1	10/11/2012 4:41:54 PM
Carbon tetrachloride	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Chlorobenzene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Chloroethane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-6 (0-0.5')
Collection Date: 10/9/2012 1:35:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: RAA
Chloroform	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Chloromethane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
2-Chlorotoluene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Carbon disulfide	ND	0.0101		mg/Kg	1	10/11/2012 4:41:54 PM
4-Chlorotoluene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
cis-1,2-DCE	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
cis-1,3-Dichloropropene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,2-Dibromo-3-chloropropane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Dibromochloromethane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Dibromomethane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,2-Dichlorobenzene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,3-Dichlorobenzene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,4-Dichlorobenzene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Dichlorodifluoromethane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,1-Dichloroethane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,1-Dichloroethene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,2-Dichloropropane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,3-Dichloropropane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
2,2-Dichloropropane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,1-Dichloropropene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Hexachlorobutadiene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Isopropylbenzene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
4-Isopropyltoluene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Methylene chloride	ND	0.00302		mg/Kg	1	10/11/2012 4:41:54 PM
n-Butylbenzene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
2-Hexanone	ND	0.0101		mg/Kg	1	10/11/2012 4:41:54 PM
n-Propylbenzene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
sec-Butylbenzene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Styrene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
4-Methyl-2-pentanone	ND	0.0101		mg/Kg	1	10/11/2012 4:41:54 PM
tert-Butylbenzene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,1,1,2-Tetrachloroethane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,1,2,2-Tetrachloroethane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Tetrachloroethene (PCE)	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
trans-1,2-DCE	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
trans-1,3-Dichloropropene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,2,3-Trichlorobenzene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,2,4-Trichlorobenzene	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,1,1-Trichloroethane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
1,1,2-Trichloroethane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Trichloroethene (TCE)	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Trichlorofluoromethane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-6 (0-0.5')
Collection Date: 10/9/2012 1:35:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Vinyl chloride	ND	0.00101		mg/Kg	1	10/11/2012 4:41:54 PM
Surr: 1,2-Dichloroethane-d4	93.6	70-130		%REC	1	10/11/2012 4:41:54 PM
Surr: 4-Bromofluorobenzene	98.0	70-130		%REC	1	10/11/2012 4:41:54 PM
Surr: Dibromofluoromethane	89.5	70-130		%REC	1	10/11/2012 4:41:54 PM
Surr: Toluene-d8	96.2	70-130		%REC	1	10/11/2012 4:41:54 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-6 (1.5-2')
Project: SWMU NO.14
Collection Date: 10/9/2012 1:45:00 PM
Lab ID: 1210582-002 **Matrix:** SOIL **Received Date:** 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	260	9.9		mg/Kg	1	10/12/2012 12:46:40 PM
Motor Oil Range Organics (MRO)	320	50		mg/Kg	1	10/12/2012 12:46:40 PM
Surr: DNOP	108	77.6-140		%REC	1	10/12/2012 12:46:40 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/12/2012 6:30:32 PM
Surr: BFB	105	84-116		%REC	1	10/12/2012 6:30:32 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.095	0.033		mg/kg	1	10/16/2012 5:01:40 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/16/2012 5:43:36 PM
Arsenic	ND	12		mg/Kg	5	10/16/2012 5:43:36 PM
Barium	330	1.0		mg/Kg	10	10/17/2012 3:01:57 PM
Beryllium	0.78	0.75		mg/Kg	5	10/16/2012 5:43:36 PM
Cadmium	ND	0.50		mg/Kg	5	10/16/2012 5:43:36 PM
Chromium	23	1.5		mg/Kg	5	10/16/2012 5:43:36 PM
Cobalt	4.5	1.5		mg/Kg	5	10/16/2012 5:43:36 PM
Iron	13000	500		mg/Kg	500	10/17/2012 3:14:30 PM
Lead	5.6	1.2		mg/Kg	5	10/16/2012 5:43:36 PM
Manganese	370	1.0		mg/Kg	10	10/17/2012 3:01:57 PM
Nickel	7.1	2.5		mg/Kg	5	10/16/2012 5:43:36 PM
Selenium	ND	12		mg/Kg	5	10/23/2012 7:44:25 PM
Silver	ND	1.2		mg/Kg	5	10/16/2012 5:43:36 PM
Vanadium	23	12		mg/Kg	5	10/16/2012 5:43:36 PM
Zinc	26	12		mg/Kg	5	10/16/2012 5:43:36 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Acenaphthylene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Aniline	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Anthracene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Azobenzene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Benzoic acid	ND	0.99		mg/Kg	1	10/12/2012 7:51:10 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-6 (1.5-2')
Collection Date: 10/9/2012 1:45:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.99		mg/Kg	1	10/12/2012 7:51:10 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Carbazole	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
4-Chloro-3-methylphenol	ND	0.99		mg/Kg	1	10/12/2012 7:51:10 PM
4-Chloroaniline	ND	0.99		mg/Kg	1	10/12/2012 7:51:10 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/12/2012 7:51:10 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Chrysene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Di-n-butyl phthalate	ND	0.99		mg/Kg	1	10/12/2012 7:51:10 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	10/12/2012 7:51:10 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Dibenzofuran	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
3,3´-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/12/2012 7:51:10 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
2,4-Dichlorophenol	ND	0.79		mg/Kg	1	10/12/2012 7:51:10 PM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/12/2012 7:51:10 PM
4,6-Dinitro-2-methylphenol	ND	0.99		mg/Kg	1	10/12/2012 7:51:10 PM
2,4-Dinitrophenol	ND	0.79		mg/Kg	1	10/12/2012 7:51:10 PM
2,4-Dinitrotoluene	ND	0.99		mg/Kg	1	10/12/2012 7:51:10 PM
2,6-Dinitrotoluene	ND	0.99		mg/Kg	1	10/12/2012 7:51:10 PM
Fluoranthene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Fluorene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Hexachloroethane	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Isophorone	ND	0.99		mg/Kg	1	10/12/2012 7:51:10 PM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
2-Methylphenol	ND	0.99		mg/Kg	1	10/12/2012 7:51:10 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Naphthalene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-6 (1.5-2')
Collection Date: 10/9/2012 1:45:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
4-Nitroaniline	ND	0.79		mg/Kg	1	10/12/2012 7:51:10 PM
Nitrobenzene	ND	0.99		mg/Kg	1	10/12/2012 7:51:10 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/12/2012 7:51:10 PM
Pentachlorophenol	ND	0.79		mg/Kg	1	10/12/2012 7:51:10 PM
Phenanthrene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Phenol	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Pyrene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Pyridine	ND	0.99		mg/Kg	1	10/12/2012 7:51:10 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 7:51:10 PM
Surr: 2,4,6-Tribromophenol	91.1	21.3-145		%REC	1	10/12/2012 7:51:10 PM
Surr: 2-Fluorobiphenyl	75.4	20-131		%REC	1	10/12/2012 7:51:10 PM
Surr: 2-Fluorophenol	72.2	11.9-130		%REC	1	10/12/2012 7:51:10 PM
Surr: 4-Terphenyl-d14	76.8	25.1-149		%REC	1	10/12/2012 7:51:10 PM
Surr: Nitrobenzene-d5	73.4	25.6-137		%REC	1	10/12/2012 7:51:10 PM
Surr: Phenol-d5	73.9	20.3-132		%REC	1	10/12/2012 7:51:10 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Toluene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Ethylbenzene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Xylenes, Total	ND	0.00162		mg/Kg	1	10/11/2012 5:12:48 PM
Methyl tert-butyl ether (MTBE)	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,2,4-Trimethylbenzene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,3,5-Trimethylbenzene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,2-Dichloroethane (EDC)	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,2-Dibromoethane (EDB)	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Naphthalene	ND	0.00162		mg/Kg	1	10/11/2012 5:12:48 PM
1-Methylnaphthalene	ND	0.00325		mg/Kg	1	10/11/2012 5:12:48 PM
2-Methylnaphthalene	ND	0.00325		mg/Kg	1	10/11/2012 5:12:48 PM
Acetone	0.0187	0.00812		mg/Kg	1	10/11/2012 5:12:48 PM
Bromobenzene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Bromodichloromethane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Bromoform	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Bromomethane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
2-Butanone	ND	0.00812		mg/Kg	1	10/11/2012 5:12:48 PM
Carbon tetrachloride	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Chlorobenzene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Chloroethane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-6 (1.5-2')
Collection Date: 10/9/2012 1:45:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Chloromethane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
2-Chlorotoluene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Carbon disulfide	ND	0.00812		mg/Kg	1	10/11/2012 5:12:48 PM
4-Chlorotoluene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
cis-1,2-DCE	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
cis-1,3-Dichloropropene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,2-Dibromo-3-chloropropane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Dibromochloromethane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Dibromomethane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,2-Dichlorobenzene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,3-Dichlorobenzene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,4-Dichlorobenzene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Dichlorodifluoromethane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,1-Dichloroethane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,1-Dichloroethene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,2-Dichloropropane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,3-Dichloropropane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
2,2-Dichloropropane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,1-Dichloropropene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Hexachlorobutadiene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Isopropylbenzene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
4-Isopropyltoluene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Methylene chloride	0.0173	0.00244		mg/Kg	1	10/11/2012 5:12:48 PM
n-Butylbenzene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
2-Hexanone	ND	0.00812		mg/Kg	1	10/11/2012 5:12:48 PM
n-Propylbenzene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
sec-Butylbenzene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Styrene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
4-Methyl-2-pentanone	ND	0.00812		mg/Kg	1	10/11/2012 5:12:48 PM
tert-Butylbenzene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,1,1,2-Tetrachloroethane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,1,2,2-Tetrachloroethane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Tetrachloroethene (PCE)	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
trans-1,2-DCE	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
trans-1,3-Dichloropropene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,2,3-Trichlorobenzene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,2,4-Trichlorobenzene	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,1,1-Trichloroethane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
1,1,2-Trichloroethane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Trichloroethene (TCE)	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Trichlorofluoromethane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-6 (1.5-2')
Collection Date: 10/9/2012 1:45:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Vinyl chloride	ND	0.000812		mg/Kg	1	10/11/2012 5:12:48 PM
Surr: 1,2-Dichloroethane-d4	96.8	70-130		%REC	1	10/11/2012 5:12:48 PM
Surr: 4-Bromofluorobenzene	92.7	70-130		%REC	1	10/11/2012 5:12:48 PM
Surr: Dibromofluoromethane	97.4	70-130		%REC	1	10/11/2012 5:12:48 PM
Surr: Toluene-d8	104	70-130		%REC	1	10/11/2012 5:12:48 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-6 (10-12')
Collection Date: 10/9/2012 1:55:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	2200	96		mg/Kg	10	10/12/2012 12:25:01 PM
Motor Oil Range Organics (MRO)	ND	480		mg/Kg	10	10/12/2012 12:25:01 PM
Surr: DNOP	0	77.6-140	S	%REC	10	10/12/2012 12:25:01 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	220	50		mg/Kg	10	10/12/2012 12:44:56 PM
Surr: BFB	276	84-116	S	%REC	10	10/12/2012 12:44:56 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 5:03:26 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/16/2012 5:50:19 PM
Arsenic	ND	12		mg/Kg	5	10/16/2012 5:50:19 PM
Barium	340	1.0		mg/Kg	10	10/17/2012 3:17:21 PM
Beryllium	0.83	0.75		mg/Kg	5	10/16/2012 5:50:19 PM
Cadmium	ND	0.50		mg/Kg	5	10/16/2012 5:50:19 PM
Chromium	9.1	1.5		mg/Kg	5	10/16/2012 5:50:19 PM
Cobalt	4.7	1.5		mg/Kg	5	10/16/2012 5:50:19 PM
Iron	13000	500		mg/Kg	500	10/17/2012 3:19:44 PM
Lead	4.5	1.2		mg/Kg	5	10/16/2012 5:50:19 PM
Manganese	340	1.0		mg/Kg	10	10/17/2012 3:17:21 PM
Nickel	7.6	2.5		mg/Kg	5	10/16/2012 5:50:19 PM
Selenium	ND	12		mg/Kg	5	10/23/2012 7:46:48 PM
Silver	ND	1.2		mg/Kg	5	10/16/2012 5:50:19 PM
Vanadium	21	12		mg/Kg	5	10/16/2012 5:50:19 PM
Zinc	16	12		mg/Kg	5	10/16/2012 5:50:19 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Acenaphthylene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Aniline	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Anthracene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Azobenzene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Benzoic acid	ND	0.99		mg/Kg	1	10/12/2012 8:20:33 PM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM

Qualifiers:

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- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-6 (10-12')
Collection Date: 10/9/2012 1:55:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.99		mg/Kg	1	10/12/2012 8:20:33 PM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Carbazole	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
4-Chloro-3-methylphenol	ND	0.99		mg/Kg	1	10/12/2012 8:20:33 PM
4-Chloroaniline	ND	0.99		mg/Kg	1	10/12/2012 8:20:33 PM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/12/2012 8:20:33 PM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Chrysene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Di-n-butyl phthalate	ND	0.99		mg/Kg	1	10/12/2012 8:20:33 PM
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	10/12/2012 8:20:33 PM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Dibenzofuran	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/12/2012 8:20:33 PM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
2,4-Dichlorophenol	ND	0.79		mg/Kg	1	10/12/2012 8:20:33 PM
2,4-Dimethylphenol	ND	0.59		mg/Kg	1	10/12/2012 8:20:33 PM
4,6-Dinitro-2-methylphenol	ND	0.99		mg/Kg	1	10/12/2012 8:20:33 PM
2,4-Dinitrophenol	ND	0.79		mg/Kg	1	10/12/2012 8:20:33 PM
2,4-Dinitrotoluene	ND	0.99		mg/Kg	1	10/12/2012 8:20:33 PM
2,6-Dinitrotoluene	ND	0.99		mg/Kg	1	10/12/2012 8:20:33 PM
Fluoranthene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Fluorene	1.2	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Hexachloroethane	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Isophorone	ND	0.99		mg/Kg	1	10/12/2012 8:20:33 PM
1-Methylnaphthalene	12	2.0		mg/Kg	5	10/14/2012 2:09:29 PM
2-Methylnaphthalene	17	2.0		mg/Kg	5	10/14/2012 2:09:29 PM
2-Methylphenol	ND	0.99		mg/Kg	1	10/12/2012 8:20:33 PM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Naphthalene	4.2	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-6 (10-12')
Collection Date: 10/9/2012 1:55:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
3-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
4-Nitroaniline	ND	0.79		mg/Kg	1	10/12/2012 8:20:33 PM
Nitrobenzene	ND	0.99		mg/Kg	1	10/12/2012 8:20:33 PM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/12/2012 8:20:33 PM
Pentachlorophenol	ND	0.79		mg/Kg	1	10/12/2012 8:20:33 PM
Phenanthrene	2.6	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Phenol	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Pyrene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Pyridine	ND	0.99		mg/Kg	1	10/12/2012 8:20:33 PM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 8:20:33 PM
Surr: 2,4,6-Tribromophenol	57.6	21.3-145		%REC	1	10/12/2012 8:20:33 PM
Surr: 2-Fluorobiphenyl	66.5	20-131		%REC	1	10/12/2012 8:20:33 PM
Surr: 2-Fluorophenol	86.9	11.9-130		%REC	1	10/12/2012 8:20:33 PM
Surr: 4-Terphenyl-d14	77.1	25.1-149		%REC	1	10/12/2012 8:20:33 PM
Surr: Nitrobenzene-d5	0	25.6-137	S	%REC	1	10/12/2012 8:20:33 PM
Surr: Phenol-d5	84.7	20.3-132		%REC	1	10/12/2012 8:20:33 PM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	0.96	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
Toluene	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
Ethylbenzene	7.5	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
1,2,4-Trimethylbenzene	13	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
1,3,5-Trimethylbenzene	4.2	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
Naphthalene	9.1	1.0		mg/Kg	10	10/19/2012 6:53:56 PM
1-Methylnaphthalene	14	2.0		mg/Kg	10	10/19/2012 6:53:56 PM
2-Methylnaphthalene	25	2.0		mg/Kg	10	10/19/2012 6:53:56 PM
Acetone	ND	7.5		mg/Kg	10	10/19/2012 6:53:56 PM
Bromobenzene	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
Bromoform	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
Bromomethane	ND	1.5		mg/Kg	10	10/19/2012 6:53:56 PM
2-Butanone	ND	5.0		mg/Kg	10	10/19/2012 6:53:56 PM
Carbon disulfide	ND	5.0		mg/Kg	10	10/19/2012 6:53:56 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	10/19/2012 6:53:56 PM
Chlorobenzene	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
Chloroethane	ND	1.0		mg/Kg	10	10/19/2012 6:53:56 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-6 (10-12')
Project: SWMU NO.14
Collection Date: 10/9/2012 1:55:00 PM
Lab ID: 1210582-003 **Matrix:** SOIL **Received Date:** 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
Chloromethane	ND	1.5		mg/Kg	10	10/19/2012 6:53:56 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	10/19/2012 6:53:56 PM
Dibromochloromethane	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
Dibromomethane	ND	1.0		mg/Kg	10	10/19/2012 6:53:56 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	10/19/2012 6:53:56 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	10/19/2012 6:53:56 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	10/19/2012 6:53:56 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	10/19/2012 6:53:56 PM
2-Hexanone	ND	5.0		mg/Kg	10	10/19/2012 6:53:56 PM
Isopropylbenzene	1.7	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
4-Isopropyltoluene	0.57	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	10/19/2012 6:53:56 PM
Methylene chloride	ND	1.5		mg/Kg	10	10/19/2012 6:53:56 PM
n-Butylbenzene	2.0	1.5		mg/Kg	10	10/19/2012 6:53:56 PM
n-Propylbenzene	3.3	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
sec-Butylbenzene	1.2	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
Styrene	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	10/19/2012 6:53:56 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	10/19/2012 6:53:56 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-6 (10-12')
Collection Date: 10/9/2012 1:55:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	0.50		mg/Kg	10	10/19/2012 6:53:56 PM
Xylenes, Total	12	1.0		mg/Kg	10	10/19/2012 6:53:56 PM
Surr: 1,2-Dichloroethane-d4	99.3	70-130		%REC	10	10/19/2012 6:53:56 PM
Surr: 4-Bromofluorobenzene	71.0	70-130		%REC	10	10/19/2012 6:53:56 PM
Surr: Dibromofluoromethane	92.6	70-130		%REC	10	10/19/2012 6:53:56 PM
Surr: Toluene-d8	95.7	70-130		%REC	10	10/19/2012 6:53:56 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-6 (17-18')
Collection Date: 10/9/2012 2:10:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	10/12/2012 9:02:54 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/12/2012 9:02:54 AM
Surr: DNOP	104	77.6-140		%REC	1	10/12/2012 9:02:54 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/12/2012 6:59:20 PM
Surr: BFB	106	84-116		%REC	1	10/12/2012 6:59:20 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 5:08:43 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/16/2012 5:55:27 PM
Arsenic	ND	12		mg/Kg	5	10/16/2012 5:55:27 PM
Barium	290	1.0		mg/Kg	10	10/17/2012 3:22:21 PM
Beryllium	0.87	0.75		mg/Kg	5	10/16/2012 5:55:27 PM
Cadmium	ND	0.50		mg/Kg	5	10/16/2012 5:55:27 PM
Chromium	8.9	1.5		mg/Kg	5	10/16/2012 5:55:27 PM
Cobalt	5.6	1.5		mg/Kg	5	10/16/2012 5:55:27 PM
Iron	16000	500		mg/Kg	500	10/17/2012 3:27:16 PM
Lead	2.9	1.2		mg/Kg	5	10/16/2012 5:55:27 PM
Manganese	1100	5.0		mg/Kg	50	10/17/2012 3:24:47 PM
Nickel	11	2.5		mg/Kg	5	10/16/2012 5:55:27 PM
Selenium	ND	12		mg/Kg	5	10/23/2012 7:49:15 PM
Silver	ND	1.2		mg/Kg	5	10/16/2012 5:55:27 PM
Vanadium	ND	12		mg/Kg	5	10/16/2012 5:55:27 PM
Zinc	17	12		mg/Kg	5	10/16/2012 5:55:27 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Aniline	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Anthracene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Azobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/12/2012 8:49:51 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-6 (17-18')
Collection Date: 10/9/2012 2:10:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/12/2012 8:49:51 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Carbazole	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 8:49:51 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/12/2012 8:49:51 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/12/2012 8:49:51 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Chrysene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/12/2012 8:49:51 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/12/2012 8:49:51 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/12/2012 8:49:51 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 8:49:51 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/12/2012 8:49:51 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 8:49:51 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/12/2012 8:49:51 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 8:49:51 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 8:49:51 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Fluorene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Isophorone	ND	0.50		mg/Kg	1	10/12/2012 8:49:51 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/12/2012 8:49:51 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Naphthalene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-6 (17-18')
Collection Date: 10/9/2012 2:10:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 8:49:51 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/12/2012 8:49:51 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/12/2012 8:49:51 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/12/2012 8:49:51 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Phenol	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Pyrene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Pyridine	ND	0.50		mg/Kg	1	10/12/2012 8:49:51 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 8:49:51 PM
Surr: 2,4,6-Tribromophenol	73.4	21.3-145		%REC	1	10/12/2012 8:49:51 PM
Surr: 2-Fluorobiphenyl	65.9	20-131		%REC	1	10/12/2012 8:49:51 PM
Surr: 2-Fluorophenol	66.9	11.9-130		%REC	1	10/12/2012 8:49:51 PM
Surr: 4-Terphenyl-d14	62.2	25.1-149		%REC	1	10/12/2012 8:49:51 PM
Surr: Nitrobenzene-d5	67.3	25.6-137		%REC	1	10/12/2012 8:49:51 PM
Surr: Phenol-d5	72.3	20.3-132		%REC	1	10/12/2012 8:49:51 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00909	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Toluene	0.00596	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Ethylbenzene	0.00134	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Xylenes, Total	0.00460	0.00216		mg/Kg	1	10/11/2012 5:43:38 PM
Methyl tert-butyl ether (MTBE)	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,2,4-Trimethylbenzene	0.00148	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,3,5-Trimethylbenzene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,2-Dichloroethane (EDC)	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,2-Dibromoethane (EDB)	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Naphthalene	ND	0.00216		mg/Kg	1	10/11/2012 5:43:38 PM
1-Methylnaphthalene	ND	0.00432		mg/Kg	1	10/11/2012 5:43:38 PM
2-Methylnaphthalene	ND	0.00432		mg/Kg	1	10/11/2012 5:43:38 PM
Acetone	ND	0.0108		mg/Kg	1	10/11/2012 5:43:38 PM
Bromobenzene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Bromodichloromethane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Bromoform	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Bromomethane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
2-Butanone	ND	0.0108		mg/Kg	1	10/11/2012 5:43:38 PM
Carbon tetrachloride	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Chlorobenzene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Chloroethane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-6 (17-18')
Collection Date: 10/9/2012 2:10:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Chloromethane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
2-Chlorotoluene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Carbon disulfide	ND	0.0108		mg/Kg	1	10/11/2012 5:43:38 PM
4-Chlorotoluene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
cis-1,2-DCE	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
cis-1,3-Dichloropropene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,2-Dibromo-3-chloropropane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Dibromochloromethane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Dibromomethane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,2-Dichlorobenzene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,3-Dichlorobenzene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,4-Dichlorobenzene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Dichlorodifluoromethane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,1-Dichloroethane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,1-Dichloroethene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,2-Dichloropropane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,3-Dichloropropane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
2,2-Dichloropropane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,1-Dichloropropene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Hexachlorobutadiene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Isopropylbenzene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
4-Isopropyltoluene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Methylene chloride	0.0310	0.00324	E	mg/Kg	1	10/11/2012 5:43:38 PM
n-Butylbenzene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
2-Hexanone	ND	0.0108		mg/Kg	1	10/11/2012 5:43:38 PM
n-Propylbenzene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
sec-Butylbenzene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Styrene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
4-Methyl-2-pentanone	ND	0.0108		mg/Kg	1	10/11/2012 5:43:38 PM
tert-Butylbenzene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,1,1,2-Tetrachloroethane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,1,2,2-Tetrachloroethane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Tetrachloroethene (PCE)	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
trans-1,2-DCE	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
trans-1,3-Dichloropropene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,2,3-Trichlorobenzene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,2,4-Trichlorobenzene	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,1,1-Trichloroethane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
1,1,2-Trichloroethane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Trichloroethene (TCE)	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Trichlorofluoromethane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-6 (17-18')
Project: SWMU NO.14
Collection Date: 10/9/2012 2:10:00 PM
Lab ID: 1210582-004
Matrix: SOIL
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Vinyl chloride	ND	0.00108		mg/Kg	1	10/11/2012 5:43:38 PM
Surr: 1,2-Dichloroethane-d4	97.0	70-130		%REC	1	10/11/2012 5:43:38 PM
Surr: 4-Bromofluorobenzene	93.2	70-130		%REC	1	10/11/2012 5:43:38 PM
Surr: Dibromofluoromethane	98.9	70-130		%REC	1	10/11/2012 5:43:38 PM
Surr: Toluene-d8	95.2	70-130		%REC	1	10/11/2012 5:43:38 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-21 (0-0.5')
Collection Date: 10/9/2012 3:35:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	21	10		mg/Kg	1	10/12/2012 2:15:12 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/12/2012 2:15:12 PM
Surr: DNOP	101	77.6-140		%REC	1	10/12/2012 2:15:12 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2012 1:13:43 AM
Surr: BFB	113	84-116		%REC	1	10/13/2012 1:13:43 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 5:10:30 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/16/2012 6:00:28 PM
Arsenic	ND	12		mg/Kg	5	10/16/2012 6:00:28 PM
Barium	470	1.0		mg/Kg	10	10/17/2012 3:29:50 PM
Beryllium	ND	0.75		mg/Kg	5	10/16/2012 6:00:28 PM
Cadmium	ND	0.50		mg/Kg	5	10/16/2012 6:00:28 PM
Chromium	5.7	1.5		mg/Kg	5	10/16/2012 6:00:28 PM
Cobalt	3.2	1.5		mg/Kg	5	10/16/2012 6:00:28 PM
Iron	11000	500		mg/Kg	500	10/17/2012 3:34:44 PM
Lead	10	1.2		mg/Kg	5	10/16/2012 6:00:28 PM
Manganese	550	5.0		mg/Kg	50	10/17/2012 3:32:16 PM
Nickel	4.3	2.5		mg/Kg	5	10/16/2012 6:00:28 PM
Selenium	ND	12		mg/Kg	5	10/23/2012 7:51:43 PM
Silver	ND	1.2		mg/Kg	5	10/16/2012 6:00:28 PM
Vanadium	17	12		mg/Kg	5	10/16/2012 6:00:28 PM
Zinc	29	12		mg/Kg	5	10/16/2012 6:00:28 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Aniline	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Anthracene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Azobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/12/2012 9:19:12 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-21 (0-0.5')
Project: SWMU NO.14
Collection Date: 10/9/2012 3:35:00 PM
Lab ID: 1210582-005
Matrix: SOIL
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/12/2012 9:19:12 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Carbazole	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 9:19:12 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/12/2012 9:19:12 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/12/2012 9:19:12 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Chrysene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/12/2012 9:19:12 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/12/2012 9:19:12 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/12/2012 9:19:12 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 9:19:12 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/12/2012 9:19:12 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 9:19:12 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/12/2012 9:19:12 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 9:19:12 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 9:19:12 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Fluorene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Isophorone	ND	0.50		mg/Kg	1	10/12/2012 9:19:12 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/12/2012 9:19:12 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Naphthalene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-21 (0-0.5')
Collection Date: 10/9/2012 3:35:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 9:19:12 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/12/2012 9:19:12 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/12/2012 9:19:12 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/12/2012 9:19:12 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Phenol	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Pyrene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Pyridine	ND	0.50		mg/Kg	1	10/12/2012 9:19:12 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 9:19:12 PM
Surr: 2,4,6-Tribromophenol	86.0	21.3-145		%REC	1	10/12/2012 9:19:12 PM
Surr: 2-Fluorobiphenyl	79.3	20-131		%REC	1	10/12/2012 9:19:12 PM
Surr: 2-Fluorophenol	77.5	11.9-130		%REC	1	10/12/2012 9:19:12 PM
Surr: 4-Terphenyl-d14	76.4	25.1-149		%REC	1	10/12/2012 9:19:12 PM
Surr: Nitrobenzene-d5	80.9	25.6-137		%REC	1	10/12/2012 9:19:12 PM
Surr: Phenol-d5	81.7	20.3-132		%REC	1	10/12/2012 9:19:12 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00192	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Toluene	0.00300	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Ethylbenzene	0.00194	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Xylenes, Total	0.0128	0.00161		mg/Kg	1	10/11/2012 6:14:26 PM
Methyl tert-butyl ether (MTBE)	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,2,4-Trimethylbenzene	0.00163	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,3,5-Trimethylbenzene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,2-Dichloroethane (EDC)	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,2-Dibromoethane (EDB)	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Naphthalene	ND	0.00161		mg/Kg	1	10/11/2012 6:14:26 PM
1-Methylnaphthalene	ND	0.00322		mg/Kg	1	10/11/2012 6:14:26 PM
2-Methylnaphthalene	ND	0.00322		mg/Kg	1	10/11/2012 6:14:26 PM
Acetone	0.627	0.00805	E	mg/Kg	1	10/11/2012 6:14:26 PM
Bromobenzene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Bromodichloromethane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Bromoform	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Bromomethane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
2-Butanone	0.0217	0.00805		mg/Kg	1	10/11/2012 6:14:26 PM
Carbon tetrachloride	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Chlorobenzene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Chloroethane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-21 (0-0.5')
Project: SWMU NO.14
Collection Date: 10/9/2012 3:35:00 PM
Lab ID: 1210582-005 **Matrix:** SOIL **Received Date:** 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Chloromethane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
2-Chlorotoluene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Carbon disulfide	ND	0.00805		mg/Kg	1	10/11/2012 6:14:26 PM
4-Chlorotoluene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
cis-1,2-DCE	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
cis-1,3-Dichloropropene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,2-Dibromo-3-chloropropane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Dibromochloromethane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Dibromomethane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,2-Dichlorobenzene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,3-Dichlorobenzene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,4-Dichlorobenzene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Dichlorodifluoromethane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,1-Dichloroethane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,1-Dichloroethene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,2-Dichloropropane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,3-Dichloropropane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
2,2-Dichloropropane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,1-Dichloropropene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Hexachlorobutadiene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Isopropylbenzene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
4-Isopropyltoluene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Methylene chloride	ND	0.00242		mg/Kg	1	10/11/2012 6:14:26 PM
n-Butylbenzene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
2-Hexanone	ND	0.00805		mg/Kg	1	10/11/2012 6:14:26 PM
n-Propylbenzene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
sec-Butylbenzene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Styrene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
4-Methyl-2-pentanone	ND	0.00805		mg/Kg	1	10/11/2012 6:14:26 PM
tert-Butylbenzene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,1,1,2-Tetrachloroethane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,1,2,2-Tetrachloroethane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Tetrachloroethene (PCE)	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
trans-1,2-DCE	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
trans-1,3-Dichloropropene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,2,3-Trichlorobenzene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,2,4-Trichlorobenzene	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,1,1-Trichloroethane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
1,1,2-Trichloroethane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Trichloroethene (TCE)	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Trichlorofluoromethane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-21 (0-0.5')
Collection Date: 10/9/2012 3:35:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Vinyl chloride	ND	0.000805		mg/Kg	1	10/11/2012 6:14:26 PM
Surr: 1,2-Dichloroethane-d4	90.8	70-130		%REC	1	10/11/2012 6:14:26 PM
Surr: 4-Bromofluorobenzene	102	70-130		%REC	1	10/11/2012 6:14:26 PM
Surr: Dibromofluoromethane	92.4	70-130		%REC	1	10/11/2012 6:14:26 PM
Surr: Toluene-d8	86.5	70-130		%REC	1	10/11/2012 6:14:26 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-21 (1.5-2')
Project: SWMU NO.14
Collection Date: 10/9/2012 3:45:00 PM
Lab ID: 1210582-006 **Matrix:** SOIL **Received Date:** 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/12/2012 9:24:29 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	10/12/2012 9:24:29 AM
Surr: DNOP	102	77.6-140		%REC	1	10/12/2012 9:24:29 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2012 1:42:26 AM
Surr: BFB	105	84-116		%REC	1	10/13/2012 1:42:26 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 5:12:16 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/23/2012 7:54:10 PM
Arsenic	ND	12		mg/Kg	5	10/16/2012 6:14:02 PM
Barium	750	5.0		mg/Kg	50	10/17/2012 3:52:04 PM
Beryllium	ND	0.75		mg/Kg	5	10/16/2012 6:14:02 PM
Cadmium	ND	0.50		mg/Kg	5	10/16/2012 6:14:02 PM
Chromium	7.4	1.5		mg/Kg	5	10/16/2012 6:14:02 PM
Cobalt	3.9	1.5		mg/Kg	5	10/16/2012 6:14:02 PM
Iron	12000	500		mg/Kg	500	10/17/2012 3:54:29 PM
Lead	5.0	1.2		mg/Kg	5	10/16/2012 6:14:02 PM
Manganese	550	5.0		mg/Kg	50	10/17/2012 3:52:04 PM
Nickel	6.1	2.5		mg/Kg	5	10/16/2012 6:14:02 PM
Selenium	ND	12		mg/Kg	5	10/23/2012 7:54:10 PM
Silver	ND	1.2		mg/Kg	5	10/16/2012 6:14:02 PM
Vanadium	16	12		mg/Kg	5	10/16/2012 6:14:02 PM
Zinc	22	12		mg/Kg	5	10/16/2012 6:14:02 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Aniline	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Anthracene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Azobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/12/2012 9:48:27 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-006 **Matrix:** SOIL

Client Sample ID: SWMU 14-21 (1.5-2')
Collection Date: 10/9/2012 3:45:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/12/2012 9:48:27 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Carbazole	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 9:48:27 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/12/2012 9:48:27 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/12/2012 9:48:27 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Chrysene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/12/2012 9:48:27 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/12/2012 9:48:27 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/12/2012 9:48:27 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 9:48:27 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/12/2012 9:48:27 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 9:48:27 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/12/2012 9:48:27 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 9:48:27 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 9:48:27 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Fluorene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Isophorone	ND	0.50		mg/Kg	1	10/12/2012 9:48:27 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/12/2012 9:48:27 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Naphthalene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-006 **Matrix:** SOIL

Client Sample ID: SWMU 14-21 (1.5-2')
Collection Date: 10/9/2012 3:45:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 9:48:27 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/12/2012 9:48:27 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/12/2012 9:48:27 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/12/2012 9:48:27 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Phenol	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Pyrene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Pyridine	ND	0.50		mg/Kg	1	10/12/2012 9:48:27 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 9:48:27 PM
Surr: 2,4,6-Tribromophenol	68.3	21.3-145		%REC	1	10/12/2012 9:48:27 PM
Surr: 2-Fluorobiphenyl	71.2	20-131		%REC	1	10/12/2012 9:48:27 PM
Surr: 2-Fluorophenol	64.8	11.9-130		%REC	1	10/12/2012 9:48:27 PM
Surr: 4-Terphenyl-d14	63.8	25.1-149		%REC	1	10/12/2012 9:48:27 PM
Surr: Nitrobenzene-d5	68.6	25.6-137		%REC	1	10/12/2012 9:48:27 PM
Surr: Phenol-d5	70.9	20.3-132		%REC	1	10/12/2012 9:48:27 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00145	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Toluene	0.00126	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Ethylbenzene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Xylenes, Total	ND	0.00207		mg/Kg	1	10/11/2012 6:45:11 PM
Methyl tert-butyl ether (MTBE)	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,2,4-Trimethylbenzene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,3,5-Trimethylbenzene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,2-Dichloroethane (EDC)	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,2-Dibromoethane (EDB)	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Naphthalene	ND	0.00207		mg/Kg	1	10/11/2012 6:45:11 PM
1-Methylnaphthalene	ND	0.00415		mg/Kg	1	10/11/2012 6:45:11 PM
2-Methylnaphthalene	ND	0.00415		mg/Kg	1	10/11/2012 6:45:11 PM
Acetone	0.0315	0.0104		mg/Kg	1	10/11/2012 6:45:11 PM
Bromobenzene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Bromodichloromethane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Bromoform	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Bromomethane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
2-Butanone	ND	0.0104		mg/Kg	1	10/11/2012 6:45:11 PM
Carbon tetrachloride	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Chlorobenzene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Chloroethane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-21 (1.5-2')
Project: SWMU NO.14
Collection Date: 10/9/2012 3:45:00 PM
Lab ID: 1210582-006
Matrix: SOIL
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Chloromethane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
2-Chlorotoluene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Carbon disulfide	ND	0.0104		mg/Kg	1	10/11/2012 6:45:11 PM
4-Chlorotoluene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
cis-1,2-DCE	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
cis-1,3-Dichloropropene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,2-Dibromo-3-chloropropane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Dibromochloromethane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Dibromomethane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,2-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,3-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,4-Dichlorobenzene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Dichlorodifluoromethane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,1-Dichloroethane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,1-Dichloroethene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,2-Dichloropropane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,3-Dichloropropane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
2,2-Dichloropropane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,1-Dichloropropene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Hexachlorobutadiene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Isopropylbenzene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
4-Isopropyltoluene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Methylene chloride	0.0142	0.00311		mg/Kg	1	10/11/2012 6:45:11 PM
n-Butylbenzene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
2-Hexanone	ND	0.0104		mg/Kg	1	10/11/2012 6:45:11 PM
n-Propylbenzene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
sec-Butylbenzene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Styrene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
4-Methyl-2-pentanone	ND	0.0104		mg/Kg	1	10/11/2012 6:45:11 PM
tert-Butylbenzene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,1,1,2-Tetrachloroethane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,1,2,2-Tetrachloroethane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Tetrachloroethene (PCE)	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
trans-1,2-DCE	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
trans-1,3-Dichloropropene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,2,3-Trichlorobenzene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,2,4-Trichlorobenzene	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,1,1-Trichloroethane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
1,1,2-Trichloroethane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Trichloroethene (TCE)	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Trichlorofluoromethane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-006 **Matrix:** SOIL

Client Sample ID: SWMU 14-21 (1.5-2')
Collection Date: 10/9/2012 3:45:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Vinyl chloride	ND	0.00104		mg/Kg	1	10/11/2012 6:45:11 PM
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	10/11/2012 6:45:11 PM
Surr: 4-Bromofluorobenzene	96.0	70-130		%REC	1	10/11/2012 6:45:11 PM
Surr: Dibromofluoromethane	105	70-130		%REC	1	10/11/2012 6:45:11 PM
Surr: Toluene-d8	97.9	70-130		%REC	1	10/11/2012 6:45:11 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-007 **Matrix:** SOIL

Client Sample ID: SWMU 14-21 (8-10')
Collection Date: 10/9/2012 4:00:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/12/2012 9:46:10 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/12/2012 9:46:10 AM
Surr: DNOP	104	77.6-140		%REC	1	10/12/2012 9:46:10 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2012 2:11:08 AM
Surr: BFB	105	84-116		%REC	1	10/13/2012 2:11:08 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 5:21:15 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/23/2012 7:56:35 PM
Arsenic	ND	12		mg/Kg	5	10/16/2012 6:18:57 PM
Barium	160	0.50		mg/Kg	5	10/16/2012 6:18:57 PM
Beryllium	0.91	0.75		mg/Kg	5	10/16/2012 6:18:57 PM
Cadmium	ND	0.50		mg/Kg	5	10/16/2012 6:18:57 PM
Chromium	8.0	1.5		mg/Kg	5	10/16/2012 6:18:57 PM
Cobalt	4.3	1.5		mg/Kg	5	10/16/2012 6:18:57 PM
Iron	12000	500		mg/Kg	500	10/17/2012 3:57:07 PM
Lead	4.7	1.2		mg/Kg	5	10/16/2012 6:18:57 PM
Manganese	220	0.50		mg/Kg	5	10/16/2012 6:18:57 PM
Nickel	7.3	2.5		mg/Kg	5	10/16/2012 6:18:57 PM
Selenium	ND	12		mg/Kg	5	10/23/2012 7:56:35 PM
Silver	ND	1.2		mg/Kg	5	10/16/2012 6:18:57 PM
Vanadium	14	12		mg/Kg	5	10/16/2012 6:18:57 PM
Zinc	13	12		mg/Kg	5	10/16/2012 6:18:57 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Aniline	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Anthracene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Azobenzene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/12/2012 10:17:34 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-007 **Matrix:** SOIL

Client Sample ID: SWMU 14-21 (8-10')
Collection Date: 10/9/2012 4:00:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/12/2012 10:17:34 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Carbazole	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 10:17:34 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/12/2012 10:17:34 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/12/2012 10:17:34 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Chrysene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/12/2012 10:17:34 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/12/2012 10:17:34 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/12/2012 10:17:34 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 10:17:34 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/12/2012 10:17:34 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 10:17:34 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/12/2012 10:17:34 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 10:17:34 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 10:17:34 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Fluorene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Isophorone	ND	0.50		mg/Kg	1	10/12/2012 10:17:34 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/12/2012 10:17:34 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Naphthalene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-007 **Matrix:** SOIL

Client Sample ID: SWMU 14-21 (8-10')
Collection Date: 10/9/2012 4:00:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
3-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 10:17:34 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/12/2012 10:17:34 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/12/2012 10:17:34 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/12/2012 10:17:34 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Phenol	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Pyrene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Pyridine	ND	0.50		mg/Kg	1	10/12/2012 10:17:34 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 10:17:34 PM
Surr: 2,4,6-Tribromophenol	86.4	21.3-145		%REC	1	10/12/2012 10:17:34 PM
Surr: 2-Fluorobiphenyl	75.8	20-131		%REC	1	10/12/2012 10:17:34 PM
Surr: 2-Fluorophenol	78.0	11.9-130		%REC	1	10/12/2012 10:17:34 PM
Surr: 4-Terphenyl-d14	69.7	25.1-149		%REC	1	10/12/2012 10:17:34 PM
Surr: Nitrobenzene-d5	81.3	25.6-137		%REC	1	10/12/2012 10:17:34 PM
Surr: Phenol-d5	84.8	20.3-132		%REC	1	10/12/2012 10:17:34 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: RAA
Benzene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Toluene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Ethylbenzene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Xylenes, Total	ND	0.00186		mg/Kg	1	10/11/2012 7:15:55 PM
Methyl tert-butyl ether (MTBE)	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,2,4-Trimethylbenzene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,3,5-Trimethylbenzene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,2-Dichloroethane (EDC)	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,2-Dibromoethane (EDB)	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Naphthalene	ND	0.00186		mg/Kg	1	10/11/2012 7:15:55 PM
1-Methylnaphthalene	ND	0.00373		mg/Kg	1	10/11/2012 7:15:55 PM
2-Methylnaphthalene	ND	0.00373		mg/Kg	1	10/11/2012 7:15:55 PM
Acetone	ND	0.00932		mg/Kg	1	10/11/2012 7:15:55 PM
Bromobenzene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Bromodichloromethane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Bromoform	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Bromomethane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
2-Butanone	ND	0.00932		mg/Kg	1	10/11/2012 7:15:55 PM
Carbon tetrachloride	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Chlorobenzene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Chloroethane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-21 (8-10')
Project: SWMU NO.14
Collection Date: 10/9/2012 4:00:00 PM
Lab ID: 1210582-007
Matrix: SOIL
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Chloromethane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
2-Chlorotoluene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Carbon disulfide	ND	0.00932		mg/Kg	1	10/11/2012 7:15:55 PM
4-Chlorotoluene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
cis-1,2-DCE	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
cis-1,3-Dichloropropene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,2-Dibromo-3-chloropropane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Dibromochloromethane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Dibromomethane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,2-Dichlorobenzene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,3-Dichlorobenzene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,4-Dichlorobenzene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Dichlorodifluoromethane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,1-Dichloroethane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,1-Dichloroethene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,2-Dichloropropane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,3-Dichloropropane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
2,2-Dichloropropane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,1-Dichloropropene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Hexachlorobutadiene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Isopropylbenzene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
4-Isopropyltoluene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Methylene chloride	0.00978	0.00279		mg/Kg	1	10/11/2012 7:15:55 PM
n-Butylbenzene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
2-Hexanone	ND	0.00932		mg/Kg	1	10/11/2012 7:15:55 PM
n-Propylbenzene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
sec-Butylbenzene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Styrene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
4-Methyl-2-pentanone	ND	0.00932		mg/Kg	1	10/11/2012 7:15:55 PM
tert-Butylbenzene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,1,1,2-Tetrachloroethane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,1,2,2-Tetrachloroethane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Tetrachloroethene (PCE)	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
trans-1,2-DCE	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
trans-1,3-Dichloropropene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,2,3-Trichlorobenzene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,2,4-Trichlorobenzene	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,1,1-Trichloroethane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
1,1,2-Trichloroethane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Trichloroethene (TCE)	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Trichlorofluoromethane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210582-007 **Matrix:** SOIL

Client Sample ID: SWMU 14-21 (8-10')
Collection Date: 10/9/2012 4:00:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Vinyl chloride	ND	0.000932		mg/Kg	1	10/11/2012 7:15:55 PM
Surr: 1,2-Dichloroethane-d4	99.7	70-130		%REC	1	10/11/2012 7:15:55 PM
Surr: 4-Bromofluorobenzene	95.2	70-130		%REC	1	10/11/2012 7:15:55 PM
Surr: Dibromofluoromethane	102	70-130		%REC	1	10/11/2012 7:15:55 PM
Surr: Toluene-d8	91.8	70-130		%REC	1	10/11/2012 7:15:55 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 121012039
Project Name: 1210582

Analytical Results Report

Sample Number 121012039-001 **Sampling Date** 10/9/2012 **Date/Time Received** 10/12/2012 12:17 PM
Client Sample ID 1210582-001D / SWMU 14-6 (0-0.5) **Sampling Time** 1:35 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/23/2012	CRW	EPA 335.4	
%moisture	4	Percent		10/26/2012	CRW	%moisture	

Sample Number 121012039-002 **Sampling Date** 10/9/2012 **Date/Time Received** 10/12/2012 12:17 PM
Client Sample ID 1210582-002D / SWMU 14-6 (1.5-2) **Sampling Time** 1:45 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/23/2012	CRW	EPA 335.4	
%moisture	10.1	Percent		10/26/2012	CRW	%moisture	

Sample Number 121012039-003 **Sampling Date** 10/9/2012 **Date/Time Received** 10/12/2012 12:17 PM
Client Sample ID 1210582-003D / SWMU 14-6 (10-12) **Sampling Time** 1:55 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/23/2012	CRW	EPA 335.4	
%moisture	16.8	Percent		10/26/2012	CRW	%moisture	

Sample Number 121012039-004 **Sampling Date** 10/9/2012 **Date/Time Received** 10/12/2012 12:17 PM
Client Sample ID 1210582-004D / SWMU 14-6 (17-18) **Sampling Time** 2:10 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/23/2012	CRW	EPA 335.4	
%moisture	14.2	Percent		10/26/2012	CRW	%moisture	

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 121012039
Project Name: 1210582

Analytical Results Report

Sample Number 121012039-005 **Sampling Date** 10/9/2012 **Date/Time Received** 10/12/2012 12:17 PM
Client Sample ID 1210582-005D / SWMU 14-21 (0-0.5) **Sampling Time** 3:35 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/23/2012	CRW	EPA 335.4	
%moisture	1.3	Percent		10/26/2012	CRW	%moisture	

Sample Number 121012039-006 **Sampling Date** 10/9/2012 **Date/Time Received** 10/12/2012 12:17 PM
Client Sample ID 1210582-006D / SWMU 14-21 (1.5-2) **Sampling Time** 3:45 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/23/2012	CRW	EPA 335.4	
%moisture	10	Percent		10/26/2012	CRW	%moisture	

Sample Number 121012039-007 **Sampling Date** 10/9/2012 **Date/Time Received** 10/12/2012 12:17 PM
Client Sample ID 1210582-007D / SWMU 14-21 (8-10) **Sampling Time** 4:00 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/23/2012	CRW	EPA 335.4	
%moisture	19.4	Percent		10/26/2012	CRW	%moisture	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210582**

14-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-4254	SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	PBS	Batch ID:	4254		RunNo:	6180				
Prep Date:	10/11/2012	Analysis Date:	10/12/2012		SeqNo:	178120	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		103	77.6	140			

Sample ID	LCS-4254	SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	LCSS	Batch ID:	4254		RunNo:	6180				
Prep Date:	10/11/2012	Analysis Date:	10/12/2012		SeqNo:	178205	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.4	52.6	130			
Surr: DNOP	4.4		5.000		88.5	77.6	140			

Sample ID	1210582-001CMS	SampType:	MS		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	SWMU 14-6 (0-0.5')	Batch ID:	4254		RunNo:	6180				
Prep Date:	10/11/2012	Analysis Date:	10/12/2012		SeqNo:	178471	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	9.9	49.60	0	115	57.2	146			
Surr: DNOP	3.3		4.960		65.9	77.6	140			S

Sample ID	1210582-001CMSD	SampType:	MSD		TestCode:	EPA Method 8015B: Diesel Range Organics				
Client ID:	SWMU 14-6 (0-0.5')	Batch ID:	4254		RunNo:	6180				
Prep Date:	10/11/2012	Analysis Date:	10/12/2012		SeqNo:	178474	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	61	9.9	49.26	0	123	57.2	146	6.62	24.5	
Surr: DNOP	3.5		4.926		71.7	77.6	140	0	0	S

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210582**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ML RB**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178737** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		103	84	116			

Sample ID **2.5UG GRO LCS**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178738** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	114	74	117			
Surr: BFB	1100		1000		111	84	116			

Sample ID **1210582-004BMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **SWMU 14-6 (17-18')**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178751** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	7.2	5.0	18.26	0	39.3	70	130			S
Surr: BFB	780		730.5		107	84	116			

Sample ID **1210582-004BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **SWMU 14-6 (17-18')**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178752** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	16	5.0	18.26	0	87.4	70	130	76.0	22.1	R
Surr: BFB	800		730.5		109	84	116	0	0	

Sample ID **B27**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **PBS**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178761** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		105	84	116			

Sample ID **2.5UG GRO LCS-II**	SampType: **LCS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **LCSS**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/13/2012**	SeqNo: **178762** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	74	117			
Surr: BFB	1100		1000		112	84	116			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210582**

14-Nov-12

ıt: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	1210653-005BMS	SampType:	MS		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	BatchQC	Batch ID:	R6205		RunNo:	6205				
Prep Date:		Analysis Date:	10/12/2012		SeqNo:	178768	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	102	70	130			
Surr: BFB	1100		1000		113	84	116			

Sample ID	1210653-005BMSD	SampType:	MSD		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	BatchQC	Batch ID:	R6205		RunNo:	6205				
Prep Date:		Analysis Date:	10/12/2012		SeqNo:	178769	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	70	130	7.96	22.1	
Surr: BFB	1200		1000		117	84	116	0	0	S

ıifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210582**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **b2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184052** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210582**

14-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **b2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184052** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
Trichloroethane	ND	0.050								
Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		87.9	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.2	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		90.8	70	130			
Surr: Toluene-d8	0.47		0.5000		94.3	70	130			

Sample ID **100ng lcsc**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184056** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	114	70	130			
Toluene	1.0	0.050	1.000	0	102	80	120			
Chlorobenzene	1.0	0.050	1.000	0	100	70	130			
1,1-Dichloroethene	1.1	0.050	1.000	0	108	74	124			
Trichloroethene (TCE)	0.95	0.050	1.000	0	94.6	70	130			
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		90.9	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.6	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210582**

14-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **100ng lcsc**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184056** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.45		0.5000		90.1	70	130			
Surr: Toluene-d8	0.46		0.5000		91.1	70	130			

Sample ID **1210582-003bms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **SWMU 14-6 (10-12')**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184057** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	7.0	0.50	5.641	0.9563	108	80.9	118			
Toluene	5.9	0.50	5.641	0.06927	104	69.5	119			
Chlorobenzene	5.8	0.50	5.641	0	104	75.7	115			
1,1-Dichloroethene	5.8	0.50	5.641	0	103	68.6	126			
Trichloroethene (TCE)	5.2	0.50	5.641	0	92.0	68.7	115			
Surr: 1,2-Dichloroethane-d4	2.7		2.820		95.2	70	130			
Surr: 4-Bromofluorobenzene	2.1		2.820		73.3	70	130			
Surr: Dibromofluoromethane	2.7		2.820		95.5	70	130			
Surr: Toluene-d8	2.7		2.820		95.6	70	130			

Sample ID **1210582-003bmsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **SWMU 14-6 (10-12')**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184058** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	7.1	0.50	5.641	0.9563	109	80.9	118	0.812	20	
Toluene	5.7	0.50	5.641	0.06927	100	69.5	119	3.36	20	
Chlorobenzene	5.7	0.50	5.641	0	101	75.7	115	2.30	20	
1,1-Dichloroethene	5.6	0.50	5.641	0	99.4	68.6	126	3.18	24.8	
Trichloroethene (TCE)	5.2	0.50	5.641	0	91.9	68.7	115	0.0761	20	
Surr: 1,2-Dichloroethane-d4	2.8		2.820		98.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	2.0		2.820		69.9	70	130	0	0	S
Surr: Dibromofluoromethane	2.7		2.820		95.4	70	130	0	0	
Surr: Toluene-d8	2.6		2.820		93.2	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210582**

14-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **mb-4251**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**	
Client ID: **PBS**	Batch ID: **4251**	RunNo: **6184**	
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **178168**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
Naphthalene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
none	ND	0.0100								
on tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210582**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-4251**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4251**	RunNo: **6184**
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **178168** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	45.4		50.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	44.5		50.00		89.0	70	130			
Surr: Dibromofluoromethane	45.4		50.00		90.9	70	130			
Surr: Toluene-d8	43.9		50.00		87.8	70	130			

Sample ID **lcs-4251**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4251**	RunNo: **6184**
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **180403** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	9.63	1.00	10.00	0	96.3	60	140			
Toluene	9.93	1.00	10.00	0	99.3	60	140			
Chlorobenzene	10.3	1.00	10.00	0	103	60	140			
1,1-Dichloroethene	11.1	1.00	10.00	0	111	60	140			
Trichloroethene (TCE)	8.17	1.00	10.00	0	81.7	60	140			
Surr: 1,2-Dichloroethane-d4	45.2		50.00		90.4	70	130			
Surr: 4-Bromofluorobenzene	45.7		50.00		91.4	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210582**

14-Nov-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **lcs-4251**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**	
Client ID: **LCSS**	Batch ID: **4251**	RunNo: **6184**	
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **180403**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	46.8		50.00		93.5	70	130			
Surr: Toluene-d8	49.1		50.00		98.2	70	130			

Qualifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210582**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-4255**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4255**	RunNo: **6206**
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **178793** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210582**

14-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **mb-4255**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4255**	RunNo: **6206**
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **178793** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
aniline	ND	0.40								
benzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.2		3.330		96.6	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.670		90.7	20	131			
Surr: 2-Fluorophenol	3.0		3.330		91.3	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		76.4	25.1	149			
Surr: Nitrobenzene-d5	1.6		1.670		93.7	25.6	137			
Surr: Phenol-d5	3.1		3.330		94.4	20.3	132			

Sample ID **lcs-4255**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4255**	RunNo: **6206**
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **178794** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210582**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **lcs-4255**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4255**	RunNo: **6206**
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **178794** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	73.9	49.7	98.1			
4-Chloro-3-methylphenol	2.7	0.50	3.330	0	80.8	43.8	89.1			
2-Chlorophenol	2.2	0.20	3.330	0	67.4	41.1	96.9			
1,4-Dichlorobenzene	1.1	0.20	1.670	0	67.6	41	97.4			
2,4-Dinitrotoluene	1.5	0.50	1.670	0	89.6	44.4	104			
N-Nitrosodi-n-propylamine	1.4	0.20	1.670	0	81.4	39.1	86.9			
4-Nitrophenol	2.6	0.25	3.330	0	77.3	44.2	107			
Pentachlorophenol	2.1	0.40	3.330	0	62.9	36.2	80			
Phenol	2.4	0.20	3.330	0	72.3	42.7	92.7			
Pyrene	1.3	0.20	1.670	0	77.2	34.7	98.8			
1,2,4-Trichlorobenzene	1.2	0.20	1.670	0	71.3	37.8	98.3			
Surr: 2,4,6-Tribromophenol	2.9		3.330		87.6	21.3	145			
Surr: 2-Fluorobiphenyl	1.3		1.670		76.3	20	131			
Surr: 2-Fluorophenol	2.2		3.330		66.5	11.9	130			
Surr: 4-Terphenyl-d14	1.2		1.670		74.0	25.1	149			
Surr: Nitrobenzene-d5	1.3		1.670		77.6	25.6	137			
Surr: Phenol-d5	2.6		3.330		77.6	20.3	132			

Sample ID **1210582-001Cms**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **SWMU 14-6 (0-0.5')**	Batch ID: **4255**	RunNo: **6206**
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **178807** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	0.91	0.40	1.667	0.1738	44.2	38.6	100			
4-Chloro-3-methylphenol	1.9	1.0	3.324	0	55.7	35.8	108			
2-Chlorophenol	1.7	0.40	3.324	0	51.8	48.2	96.1			
1,4-Dichlorobenzene	0.85	0.40	1.667	0	51.1	42.5	97.6			
2,4-Dinitrotoluene	ND	1.0	1.667	0	42.5	51.2	108			S
N-Nitrosodi-n-propylamine	1.0	0.40	1.667	0	61.2	31.6	114			
4-Nitrophenol	1.9	0.50	3.324	0	58.2	22.7	144			
Pentachlorophenol	1.5	0.80	3.324	0	46.2	24	109			
Phenol	1.8	0.40	3.324	0	54.0	33.1	108			
Pyrene	0.90	0.40	1.667	0	53.9	42.7	98.9			
1,2,4-Trichlorobenzene	0.85	0.40	1.667	0	50.7	27.1	118			
Surr: 2,4,6-Tribromophenol	2.0		3.324		59.6	21.3	145			
Surr: 2-Fluorobiphenyl	0.91		1.667		54.4	20	131			
Surr: 2-Fluorophenol	1.8		3.324		53.2	11.9	130			
Surr: 4-Terphenyl-d14	0.85		1.667		51.2	25.1	149			
Surr: Nitrobenzene-d5	0.89		1.667		53.3	25.6	137			
Surr: Phenol-d5	2.1		3.324		62.2	20.3	132			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210582**

14-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **1210582-001Cmsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **SWMU 14-6 (0-0.5')**	Batch ID: **4255**	RunNo: **6206**	
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **178808**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	0.76	0.40	1.660	0.1738	35.2	38.6	100	18.3	20	S
4-Chloro-3-methylphenol	1.6	0.99	3.310	0	47.7	35.8	108	15.8	20	
2-Chlorophenol	1.5	0.40	3.310	0	44.1	48.2	96.1	16.5	20	S
1,4-Dichlorobenzene	0.67	0.40	1.660	0	40.4	42.5	97.6	23.7	20	SR
2,4-Dinitrotoluene	ND	0.99	1.660	0	33.7	51.2	108	0	20	SR
N-Nitrosodi-n-propylamine	0.77	0.40	1.660	0	46.3	31.6	114	28.0	20	R
4-Nitrophenol	1.6	0.50	3.310	0	48.0	22.7	144	19.5	20	
Pentachlorophenol	1.3	0.80	3.310	0	38.4	24	109	19.0	20	
Phenol	1.4	0.40	3.310	0	43.3	33.1	108	22.5	20	R
Pyrene	0.74	0.40	1.660	0	44.7	42.7	98.9	19.0	20	
1,2,4-Trichlorobenzene	0.69	0.40	1.660	0	41.5	27.1	118	20.3	20	R
Surr: 2,4,6-Tribromophenol	1.6		3.310		48.8	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	0.72		1.660		43.6	20	131	0	0	
Surr: 2-Fluorophenol	1.5		3.310		44.6	11.9	130	0	0	
Surr: 4-Terphenyl-d14	0.68		1.660		41.2	25.1	149	0	0	
Surr: Nitrobenzene-d5	0.71		1.660		42.8	25.6	137	0	0	
Surr: Phenol-d5	1.6		3.310		47.6	20.3	132	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210582**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	MB-4314	SampType:	mblk		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	4314		RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012		SeqNo:	180677	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-4314	SampType:	lcs		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	4314		RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012		SeqNo:	180678	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	100	80	120			

Sample ID	1210582-006CMS	SampType:	ms		TestCode:	EPA Method 7471: Mercury				
Client ID:	SWMU 14-21 (1.5-2')	Batch ID:	4314		RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012		SeqNo:	180706	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1669	0.01973	92.8	75	125			

Sample ID	1210582-006CMSD	SampType:	msd		TestCode:	EPA Method 7471: Mercury				
Client ID:	SWMU 14-21 (1.5-2')	Batch ID:	4314		RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012		SeqNo:	180707	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.18	0.033	0.1660	0.01973	95.3	75	125	1.94	20	

Sample ID	MB-4317	SampType:	mblk		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	4317		RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012		SeqNo:	180708	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-4317	SampType:	lcs		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	4317		RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012		SeqNo:	180709	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1667	0	98.7	80	120			

Sample ID	1210656-004CMS	SampType:	ms		TestCode:	EPA Method 7471: Mercury				
Client ID:	BatchQC	Batch ID:	4317		RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012		SeqNo:	180735	Units:	mg/kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1654	0	96.4	75	125			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210582**

14-Nov-12

ıt: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **1210656-004CMSD**	SampType: **msd**		TestCode: **EPA Method 7471: Mercury**		
Client ID: **BatchQC**	Batch ID: **4317**		RunNo: **6270**		
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**		SeqNo: **180736**	Units: **mg/kg**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1655	0	96.8	75	125	0.493	20	

'ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210582**

14-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB-4298**	SampType: **MBLK**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS**	Batch ID: **4298**	RunNo: **6281**
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **180997** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID **LCS-4298**	SampType: **LCS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS**	Batch ID: **4298**	RunNo: **6281**
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **181002** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	22	2.5	25.00	0	86.4	80	120			
Arsenic	26	2.5	25.00	0	105	80	120			
Barium	25	0.10	25.00	0	98.6	80	120			
Beryllium	26	0.15	25.00	0	104	80	120			
Cadmium	25	0.10	25.00	0	101	80	120			
Chromium	25	0.30	25.00	0	98.3	80	120			
Cobalt	24	0.30	25.00	0	98.0	80	120			
Lead	25	0.25	25.00	0	102	80	120			
Manganese	24	0.10	25.00	0.03550	97.1	80	120			
Nickel	24	0.50	25.00	0	97.2	80	120			
Selenium	25	2.5	25.00	0	101	80	120			
Silver	5.1	0.25	5.000	0.06650	100	80	120			
Vanadium	25	2.5	25.00	0	100	80	120			
Zinc	25	2.5	25.00	0	101	80	120			

Sample ID **1210521-001CMS**	SampType: **MS**	TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC**	Batch ID: **4298**	RunNo: **6281**
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **181043** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	12	24.89	0	0	75	125			S
Arsenic	23	12	24.89	0	90.6	75	125			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210582**

14-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	1210521-001CMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	BatchQC	Batch ID:	4298	RunNo:	6281					
Prep Date:	10/15/2012	Analysis Date:	10/16/2012	SeqNo:	181043	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	25	0.75	24.89	0.6775	98.5	75	125			
Cadmium	23	0.50	24.89	0	92.7	75	125			
Chromium	38	1.5	24.89	9.549	114	75	125			
Cobalt	28	1.5	24.89	5.096	90.8	75	125			
Lead	29	1.2	24.89	9.267	80.3	75	125			
Nickel	35	2.5	24.89	8.978	106	75	125			
Selenium	22	12	24.89	0	89.0	75	125			
Silver	4.5	1.2	4.978	0	90.5	75	125			
Vanadium	48	12	24.89	23.50	97.8	75	125			
Zinc	64	12	24.89	33.89	120	75	125			

Sample ID	1210521-001CMSD	SampType:	MSD	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	BatchQC	Batch ID:	4298	RunNo:	6281					
Prep Date:	10/15/2012	Analysis Date:	10/16/2012	SeqNo:	181046	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	12	24.80	0	0	75	125	0	20	S
[illegible]c	22	12	24.80	0	88.1	75	125	3.10	20	
[illegible]um	25	0.75	24.80	0.6775	97.4	75	125	1.43	20	
Cadmium	23	0.50	24.80	0	91.2	75	125	1.97	20	
Chromium	33	1.5	24.80	9.549	93.6	75	125	14.6	20	
Cobalt	26	1.5	24.80	5.096	84.8	75	125	5.79	20	
Lead	30	1.2	24.80	9.267	81.9	75	125	1.10	20	
Nickel	30	2.5	24.80	8.978	86.2	75	125	15.4	20	
Selenium	ND	12	24.80	0	0	75	125	200	20	SR
Silver	4.5	1.2	4.960	0	91.3	75	125	0.532	20	
Vanadium	50	12	24.80	23.50	108	75	125	5.11	20	
Zinc	54	12	24.80	33.89	80.8	75	125	16.9	20	

Sample ID	MB-4298	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	PBS	Batch ID:	4298	RunNo:	6310					
Prep Date:	10/15/2012	Analysis Date:	10/17/2012	SeqNo:	181594	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	1.0								

Sample ID	LCS-4298	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	LCSS	Batch ID:	4298	RunNo:	6310					
Prep Date:	10/15/2012	Analysis Date:	10/17/2012	SeqNo:	181595	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	26	1.0	25.00	0	106	80	120			

Qualifiers:

- [illegible] Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1210582

Received by/date: MG 10/11/12

Logged By: **Michelle Garcia** 10/11/2012 8:00:00 AM — Michelle Garcia

Completed By: **Michelle Garcia** 10/11/2012 8:31:36 AM — Michelle Garcia

Reviewed By: 10/11/12

Chain of Custody

1. Were seals intact?	Yes ☐	No ☐	Not Present ☑
2. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
3. How was the sample delivered?	FedEx		

Log In

4. Coolers are present? (see 19. for cooler specific information)	Yes ☑	No ☐	NA ☐
5. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7. Sample(s) in proper container(s)?	Yes ☑	No ☐	
8. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
12. Were any sample containers received broken?	Yes ☐	No ☑	
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15. Is it clear what analyses were requested?	Yes ☑	No ☐	
16. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other _____
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush _____
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: ☑ Yes ☐ No
Sample Temperature: 6°

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210589
10/9/12	1335	SOIL	SWMU 14-6(0-0.5')	2 VIALS	SOBI	-001
				2 VIALS	MeOH	
				3 JARS	—	
	1345		SWMU 14-6(1.5-2')	2 VIALS	SOBI	-002
				2 VIALS	MeOH	
				3 JARS	—	
	1355		SWMU 14-6(10-12')	2 VIALS	MeOH	-003
				3 JARS	—	
	1410		SWMU 14-6(17-18')	2 VIALS	SOBI	-004
				2 VIALS	MeOH	
				3 JARS	—	

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			
									X						
									X						
									X	X	X	X			

Date: 10/10/12 Time: 0735 Relinquished by: _____ Received by: _____ Date Time
Date: Time: Relinquished by: Received by: Michelle Garcia 10/10/12 0800 Date Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW INC
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE-RPS
On Ice: ☐ Yes ☐ No
Sample Temperature: 1.2 °C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
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4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No 1210582	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/9/12	1535	SOIL	SWMU 14-21(0-0.5')	2 VIALS	5OBI	-005										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1545		SWMU 14-21(1.5-2')	2 VIALS	5OBI	-006										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1600		SWMU 14-21(8-10')	2 VIALS	5OBI	-007										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/10/12	0735				
Date:	Time:	Relinquished by:	Received by:	Date	Time
				10/11/12	0800

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Rpt	T	Analyte	Units	Synonym	MDL	LOD	LOQ
☐	A	Aluminum	mg/Kg		0.4481	0	
☑	A	Antimony	mg/Kg		0.629	0	
☑	A	Arsenic	mg/Kg		0.6263	0	
☑	A	Barium	mg/Kg		0.0609	0	
☑	A	Beryllium	mg/Kg		0.0093	0	
☐	A	Boron	mg/Kg		0.0826	0	
☑	A	Cadmium	mg/Kg		0.0271	0	
☐	A	Calcium	mg/Kg		6.9713	0	
☑	A	Chromium	mg/Kg		0.1184	0	
☑	A	Cobalt	mg/Kg		0.0689	0	
☐	A	Copper	mg/Kg		0.2323	0	
☑	A	Iron	mg/Kg		0.7476	0	
☑	A	Lead	mg/Kg		0.2194	0	
☐	A	Magnesium	mg/Kg		0.4651	0	
☑	A	Manganese	mg/Kg		0.0212	0	
☐	A	Molybdenum	mg/Kg		0.1423	0	
☑	A	Nickel	mg/Kg		0.1668	0	
☐	A	Potassium	mg/Kg		17.3925	0	
☑	A	Selenium	mg/Kg		1.4025	0	
☑	A	Silver	mg/Kg		0.0354	0	
☐	A	Sodium	mg/Kg		8.4278	0	
☐	A	Thallium	mg/Kg		1.1557	0	
☐	A	Tin	mg/Kg		0.8261	0	
☐	A	Titanium	mg/Kg		0.0342	0	
☐	A	Uranium	mg/Kg		0.7296	0	
☑	A	Vanadium	mg/Kg		0.0565	0	
☑	A	Zinc	mg/Kg		1.0066	0	
☐	I	Yttrium	%		0	0	
☐	I	Yttrium Radial	%		0	0	
☐	X	Uranium-confirmation	mg/Kg		0	0	
☐	X	Silicon	mg/Kg		0	0	

+ Hg

+ Cn

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 12, 2012

Scott Crouch
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU No.14 OrderNo.: 1210583

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 5 sample(s) on 10/11/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-22 (0-0.5')
Project: SWMU No.14
Collection Date: 10/9/2012 4:45:00 PM
Lab ID: 1210583-001 **Matrix:** SOIL **Received Date:** 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	150	10		mg/Kg	1	10/12/2012 1:51:40 PM
Motor Oil Range Organics (MRO)	96	50		mg/Kg	1	10/12/2012 1:51:40 PM
Surr: DNOP	91.5	77.6-140		%REC	1	10/12/2012 1:51:40 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2012 2:39:53 AM
Surr: BFB	106	84-116		%REC	1	10/13/2012 2:39:53 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.083	0.033		mg/kg	1	10/16/2012 5:23:03 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	12		mg/Kg	5	10/23/2012 7:59:00 PM
Arsenic	ND	12		mg/Kg	5	10/23/2012 7:59:00 PM
Barium	630	2.0		mg/Kg	20	10/23/2012 8:18:50 PM
Beryllium	0.90	0.75		mg/Kg	5	10/17/2012 2:07:35 PM
Cadmium	ND	0.50		mg/Kg	5	10/17/2012 2:07:35 PM
Chromium	12	1.5		mg/Kg	5	10/17/2012 2:07:35 PM
Cobalt	5.5	1.5		mg/Kg	5	10/17/2012 2:07:35 PM
Iron	15000	500		mg/Kg	500	10/17/2012 2:19:56 PM
Lead	5.9	1.2		mg/Kg	5	10/17/2012 2:07:35 PM
Manganese	550	2.0		mg/Kg	20	10/23/2012 8:18:50 PM
Nickel	8.3	2.5		mg/Kg	5	10/17/2012 2:07:35 PM
Selenium	ND	12		mg/Kg	5	10/23/2012 7:59:00 PM
Silver	ND	1.2		mg/Kg	5	10/17/2012 2:07:35 PM
Vanadium	25	12		mg/Kg	5	10/17/2012 2:07:35 PM
Zinc	33	12		mg/Kg	5	10/17/2012 2:07:35 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Aniline	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Anthracene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Azobenzene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/12/2012 10:46:37 PM
Benzyl alcohol	0.26	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU No.14
Lab ID: 1210583-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-22 (0-0.5')
Collection Date: 10/9/2012 4:45:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/12/2012 10:46:37 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Carbazole	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 10:46:37 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/12/2012 10:46:37 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/12/2012 10:46:37 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Chrysene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/12/2012 10:46:37 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/12/2012 10:46:37 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/12/2012 10:46:37 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 10:46:37 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/12/2012 10:46:37 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 10:46:37 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/12/2012 10:46:37 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 10:46:37 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 10:46:37 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Fluorene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Isophorone	ND	0.50		mg/Kg	1	10/12/2012 10:46:37 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/12/2012 10:46:37 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Naphthalene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU No.14
Lab ID: 1210583-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-22 (0-0.5')
Collection Date: 10/9/2012 4:45:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
3-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 10:46:37 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/12/2012 10:46:37 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/12/2012 10:46:37 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/12/2012 10:46:37 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Phenol	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Pyrene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Pyridine	ND	0.50		mg/Kg	1	10/12/2012 10:46:37 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 10:46:37 PM
Surr: 2,4,6-Tribromophenol	80.5	21.3-145		%REC	1	10/12/2012 10:46:37 PM
Surr: 2-Fluorobiphenyl	76.4	20-131		%REC	1	10/12/2012 10:46:37 PM
Surr: 2-Fluorophenol	72.4	11.9-130		%REC	1	10/12/2012 10:46:37 PM
Surr: 4-Terphenyl-d14	72.9	25.1-149		%REC	1	10/12/2012 10:46:37 PM
Surr: Nitrobenzene-d5	72.7	25.6-137		%REC	1	10/12/2012 10:46:37 PM
Surr: Phenol-d5	79.2	20.3-132		%REC	1	10/12/2012 10:46:37 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: RAA
Benzene	0.00124	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Toluene	0.00318	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Ethylbenzene	0.00152	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Xylenes, Total	0.00894	0.00189		mg/Kg	1	10/11/2012 7:46:38 PM
Methyl tert-butyl ether (MTBE)	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,2,4-Trimethylbenzene	0.00263	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,3,5-Trimethylbenzene	0.000983	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,2-Dichloroethane (EDC)	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,2-Dibromoethane (EDB)	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Naphthalene	ND	0.00189		mg/Kg	1	10/11/2012 7:46:38 PM
1-Methylnaphthalene	ND	0.00378		mg/Kg	1	10/11/2012 7:46:38 PM
2-Methylnaphthalene	ND	0.00378		mg/Kg	1	10/11/2012 7:46:38 PM
Acetone	0.480	0.00946	E	mg/Kg	1	10/11/2012 7:46:38 PM
Bromobenzene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Bromodichloromethane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Bromoform	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Bromomethane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
2-Butanone	0.0165	0.00946		mg/Kg	1	10/11/2012 7:46:38 PM
Carbon tetrachloride	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Chlorobenzene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Chloroethane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU No.14
Lab ID: 1210583-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-22 (0-0.5')
Collection Date: 10/9/2012 4:45:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Chloromethane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
2-Chlorotoluene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Carbon disulfide	ND	0.00946		mg/Kg	1	10/11/2012 7:46:38 PM
4-Chlorotoluene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
cis-1,2-DCE	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
cis-1,3-Dichloropropene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,2-Dibromo-3-chloropropane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Dibromochloromethane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Dibromomethane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,2-Dichlorobenzene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,3-Dichlorobenzene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,4-Dichlorobenzene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Dichlorodifluoromethane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,1-Dichloroethane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,1-Dichloroethene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,2-Dichloropropane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,3-Dichloropropane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
2,2-Dichloropropane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,1-Dichloropropene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Hexachlorobutadiene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Isopropylbenzene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
4-Isopropyltoluene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Methylene chloride	0.00694	0.00284		mg/Kg	1	10/11/2012 7:46:38 PM
n-Butylbenzene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
2-Hexanone	ND	0.00946		mg/Kg	1	10/11/2012 7:46:38 PM
n-Propylbenzene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
sec-Butylbenzene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Styrene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
4-Methyl-2-pentanone	ND	0.00946		mg/Kg	1	10/11/2012 7:46:38 PM
tert-Butylbenzene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,1,1,2-Tetrachloroethane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,1,2,2-Tetrachloroethane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Tetrachloroethene (PCE)	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
trans-1,2-DCE	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
trans-1,3-Dichloropropene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,2,3-Trichlorobenzene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,2,4-Trichlorobenzene	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,1,1-Trichloroethane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
1,1,2-Trichloroethane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Trichloroethene (TCE)	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Trichlorofluoromethane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-22 (0-0.5')
Project: SWMU No.14
Collection Date: 10/9/2012 4:45:00 PM
Lab ID: 1210583-001 **Matrix:** SOIL **Received Date:** 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Vinyl chloride	ND	0.000946		mg/Kg	1	10/11/2012 7:46:38 PM
Surr: 1,2-Dichloroethane-d4	95.9	70-130		%REC	1	10/11/2012 7:46:38 PM
Surr: 4-Bromofluorobenzene	105	70-130		%REC	1	10/11/2012 7:46:38 PM
Surr: Dibromofluoromethane	101	70-130		%REC	1	10/11/2012 7:46:38 PM
Surr: Toluene-d8	101	70-130		%REC	1	10/11/2012 7:46:38 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU No.14
Lab ID: 1210583-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-22 (1.5-2')
Collection Date: 10/9/2012 4:55:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	90	9.9		mg/Kg	1	10/12/2012 2:58:30 PM
Motor Oil Range Organics (MRO)	60	49		mg/Kg	1	10/12/2012 2:58:30 PM
Surr: DNOP	107	77.6-140		%REC	1	10/12/2012 2:58:30 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2012 3:08:37 AM
Surr: BFB	106	84-116		%REC	1	10/13/2012 3:08:37 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.050	0.033		mg/kg	1	10/16/2012 5:24:51 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/23/2012 8:21:15 PM
Arsenic	ND	5.0		mg/Kg	2	10/17/2012 12:11:16 PM
Barium	430	1.0		mg/Kg	10	10/17/2012 2:22:31 PM
Beryllium	0.83	0.30		mg/Kg	2	10/17/2012 12:11:16 PM
Cadmium	ND	0.20		mg/Kg	2	10/17/2012 12:11:16 PM
Chromium	10	0.60		mg/Kg	2	10/17/2012 12:11:16 PM
Cobalt	4.2	0.60		mg/Kg	2	10/17/2012 12:11:16 PM
Iron	14000	500		mg/Kg	500	10/17/2012 2:24:56 PM
Lead	4.3	0.50		mg/Kg	2	10/17/2012 12:11:16 PM
Manganese	540	2.0		mg/Kg	20	10/23/2012 8:23:45 PM
Nickel	7.2	1.0		mg/Kg	2	10/17/2012 12:11:16 PM
Selenium	ND	5.0		mg/Kg	2	10/23/2012 8:21:15 PM
Silver	ND	0.50		mg/Kg	2	10/17/2012 12:11:16 PM
Vanadium	17	5.0		mg/Kg	2	10/17/2012 12:11:16 PM
Zinc	20	5.0		mg/Kg	2	10/17/2012 12:11:16 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Aniline	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Anthracene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Azobenzene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Benzoic acid	ND	0.49		mg/Kg	1	10/12/2012 11:15:41 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM

Qualifiers:

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- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-22 (1.5-2')
Project: SWMU No.14
Collection Date: 10/9/2012 4:55:00 PM
Lab ID: 1210583-002
Matrix: SOIL
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.49		mg/Kg	1	10/12/2012 11:15:41 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Carbazole	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
4-Chloro-3-methylphenol	ND	0.49		mg/Kg	1	10/12/2012 11:15:41 PM
4-Chloroaniline	ND	0.49		mg/Kg	1	10/12/2012 11:15:41 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/12/2012 11:15:41 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Chrysene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Di-n-butyl phthalate	ND	0.49		mg/Kg	1	10/12/2012 11:15:41 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/12/2012 11:15:41 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/12/2012 11:15:41 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 11:15:41 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/12/2012 11:15:41 PM
4,6-Dinitro-2-methylphenol	ND	0.49		mg/Kg	1	10/12/2012 11:15:41 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/12/2012 11:15:41 PM
2,4-Dinitrotoluene	ND	0.49		mg/Kg	1	10/12/2012 11:15:41 PM
2,6-Dinitrotoluene	ND	0.49		mg/Kg	1	10/12/2012 11:15:41 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Fluorene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Isophorone	ND	0.49		mg/Kg	1	10/12/2012 11:15:41 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
2-Methylphenol	ND	0.49		mg/Kg	1	10/12/2012 11:15:41 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Naphthalene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU No.14
Lab ID: 1210583-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-22 (1.5-2')
Collection Date: 10/9/2012 4:55:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 11:15:41 PM
Nitrobenzene	ND	0.49		mg/Kg	1	10/12/2012 11:15:41 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/12/2012 11:15:41 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/12/2012 11:15:41 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Phenol	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Pyrene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Pyridine	ND	0.49		mg/Kg	1	10/12/2012 11:15:41 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 11:15:41 PM
Surr: 2,4,6-Tribromophenol	82.2	21.3-145		%REC	1	10/12/2012 11:15:41 PM
Surr: 2-Fluorobiphenyl	77.8	20-131		%REC	1	10/12/2012 11:15:41 PM
Surr: 2-Fluorophenol	66.2	11.9-130		%REC	1	10/12/2012 11:15:41 PM
Surr: 4-Terphenyl-d14	68.0	25.1-149		%REC	1	10/12/2012 11:15:41 PM
Surr: Nitrobenzene-d5	78.3	25.6-137		%REC	1	10/12/2012 11:15:41 PM
Surr: Phenol-d5	76.2	20.3-132		%REC	1	10/12/2012 11:15:41 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.000971	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Toluene	0.00135	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Ethylbenzene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Xylenes, Total	ND	0.00178		mg/Kg	1	10/11/2012 8:17:30 PM
Methyl tert-butyl ether (MTBE)	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,2,4-Trimethylbenzene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,3,5-Trimethylbenzene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,2-Dichloroethane (EDC)	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,2-Dibromoethane (EDB)	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Naphthalene	ND	0.00178		mg/Kg	1	10/11/2012 8:17:30 PM
1-Methylnaphthalene	ND	0.00356		mg/Kg	1	10/11/2012 8:17:30 PM
2-Methylnaphthalene	ND	0.00356		mg/Kg	1	10/11/2012 8:17:30 PM
Acetone	0.0505	0.00891		mg/Kg	1	10/11/2012 8:17:30 PM
Bromobenzene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Bromodichloromethane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Bromoform	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Bromomethane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
2-Butanone	ND	0.00891		mg/Kg	1	10/11/2012 8:17:30 PM
Carbon tetrachloride	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Chlorobenzene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Chloroethane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU No.14
Lab ID: 1210583-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-22 (1.5-2')
Collection Date: 10/9/2012 4:55:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Chloromethane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
2-Chlorotoluene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Carbon disulfide	ND	0.00891		mg/Kg	1	10/11/2012 8:17:30 PM
4-Chlorotoluene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
cis-1,2-DCE	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
cis-1,3-Dichloropropene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,2-Dibromo-3-chloropropane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Dibromochloromethane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Dibromomethane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,2-Dichlorobenzene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,3-Dichlorobenzene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,4-Dichlorobenzene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Dichlorodifluoromethane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,1-Dichloroethane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,1-Dichloroethene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,2-Dichloropropane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,3-Dichloropropane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
2,2-Dichloropropane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,1-Dichloropropene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Hexachlorobutadiene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Isopropylbenzene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
4-Isopropyltoluene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Methylene chloride	ND	0.00267		mg/Kg	1	10/11/2012 8:17:30 PM
n-Butylbenzene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
2-Hexanone	ND	0.00891		mg/Kg	1	10/11/2012 8:17:30 PM
n-Propylbenzene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
sec-Butylbenzene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Styrene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
4-Methyl-2-pentanone	ND	0.00891		mg/Kg	1	10/11/2012 8:17:30 PM
tert-Butylbenzene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,1,1,2-Tetrachloroethane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,1,2,2-Tetrachloroethane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Tetrachloroethene (PCE)	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
trans-1,2-DCE	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
trans-1,3-Dichloropropene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,2,3-Trichlorobenzene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,2,4-Trichlorobenzene	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,1,1-Trichloroethane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
1,1,2-Trichloroethane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Trichloroethene (TCE)	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Trichlorofluoromethane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU No.14
Lab ID: 1210583-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-22 (1.5-2')
Collection Date: 10/9/2012 4:55:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Vinyl chloride	ND	0.000891		mg/Kg	1	10/11/2012 8:17:30 PM
Surr: 1,2-Dichloroethane-d4	95.7	70-130		%REC	1	10/11/2012 8:17:30 PM
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	1	10/11/2012 8:17:30 PM
Surr: Dibromofluoromethane	97.4	70-130		%REC	1	10/11/2012 8:17:30 PM
Surr: Toluene-d8	99.0	70-130		%REC	1	10/11/2012 8:17:30 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-22 (4-6')
Project: SWMU No.14
Collection Date: 10/9/2012 5:20:00 PM
Lab ID: 1210583-003
Matrix: SOIL
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	10/12/2012 8:39:34 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/12/2012 8:39:34 AM
Surr: DNOP	96.9	77.6-140		%REC	1	10/12/2012 8:39:34 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2012 3:37:27 AM
Surr: BFB	107	84-116		%REC	1	10/13/2012 3:37:27 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 5:30:11 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/23/2012 8:26:10 PM
Arsenic	ND	5.0		mg/Kg	2	10/17/2012 12:16:23 PM
Barium	170	0.50		mg/Kg	5	10/17/2012 2:39:25 PM
Beryllium	0.89	0.30		mg/Kg	2	10/17/2012 12:16:23 PM
Cadmium	ND	0.20		mg/Kg	2	10/17/2012 12:16:23 PM
Chromium	7.6	0.60		mg/Kg	2	10/17/2012 12:16:23 PM
Cobalt	4.3	0.60		mg/Kg	2	10/17/2012 12:16:23 PM
Iron	13000	500		mg/Kg	500	10/17/2012 2:44:12 PM
Lead	4.0	0.50		mg/Kg	2	10/17/2012 12:16:23 PM
Manganese	370	1.0		mg/Kg	10	10/17/2012 2:41:49 PM
Nickel	7.2	1.0		mg/Kg	2	10/17/2012 12:16:23 PM
Selenium	ND	5.0		mg/Kg	2	10/23/2012 8:26:10 PM
Silver	ND	0.50		mg/Kg	2	10/17/2012 12:16:23 PM
Vanadium	13	5.0		mg/Kg	2	10/17/2012 12:16:23 PM
Zinc	13	5.0		mg/Kg	2	10/17/2012 12:16:23 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Aniline	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Anthracene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Azobenzene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/12/2012 11:44:43 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU No.14
Lab ID: 1210583-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-22 (4-6')
Collection Date: 10/9/2012 5:20:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/12/2012 11:44:43 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Carbazole	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 11:44:43 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/12/2012 11:44:43 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/12/2012 11:44:43 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Chrysene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/12/2012 11:44:43 PM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/12/2012 11:44:43 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/12/2012 11:44:43 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/12/2012 11:44:43 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/12/2012 11:44:43 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/12/2012 11:44:43 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/12/2012 11:44:43 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 11:44:43 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/12/2012 11:44:43 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Fluorene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Isophorone	ND	0.50		mg/Kg	1	10/12/2012 11:44:43 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/12/2012 11:44:43 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Naphthalene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU No.14
Lab ID: 1210583-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-22 (4-6')
Collection Date: 10/9/2012 5:20:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/12/2012 11:44:43 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/12/2012 11:44:43 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/12/2012 11:44:43 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/12/2012 11:44:43 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Phenol	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Pyrene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Pyridine	ND	0.50		mg/Kg	1	10/12/2012 11:44:43 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/12/2012 11:44:43 PM
Surr: 2,4,6-Tribromophenol	77.8	21.3-145		%REC	1	10/12/2012 11:44:43 PM
Surr: 2-Fluorobiphenyl	73.9	20-131		%REC	1	10/12/2012 11:44:43 PM
Surr: 2-Fluorophenol	62.1	11.9-130		%REC	1	10/12/2012 11:44:43 PM
Surr: 4-Terphenyl-d14	64.9	25.1-149		%REC	1	10/12/2012 11:44:43 PM
Surr: Nitrobenzene-d5	71.5	25.6-137		%REC	1	10/12/2012 11:44:43 PM
Surr: Phenol-d5	70.3	20.3-132		%REC	1	10/12/2012 11:44:43 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00190	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Toluene	0.00162	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Ethylbenzene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Xylenes, Total	ND	0.00200		mg/Kg	1	10/11/2012 8:48:22 PM
Methyl tert-butyl ether (MTBE)	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,2,4-Trimethylbenzene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,3,5-Trimethylbenzene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,2-Dichloroethane (EDC)	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,2-Dibromoethane (EDB)	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Naphthalene	ND	0.00200		mg/Kg	1	10/11/2012 8:48:22 PM
1-Methylnaphthalene	ND	0.00401		mg/Kg	1	10/11/2012 8:48:22 PM
2-Methylnaphthalene	ND	0.00401		mg/Kg	1	10/11/2012 8:48:22 PM
Acetone	0.0151	0.0100		mg/Kg	1	10/11/2012 8:48:22 PM
Bromobenzene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Bromodichloromethane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Bromoform	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Bromomethane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
2-Butanone	ND	0.0100		mg/Kg	1	10/11/2012 8:48:22 PM
Carbon tetrachloride	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Chlorobenzene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Chloroethane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-22 (4-6')
Project: SWMU No.14
Collection Date: 10/9/2012 5:20:00 PM
Lab ID: 1210583-003
Matrix: SOIL
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: RAA
Chloroform	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Chloromethane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
2-Chlorotoluene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Carbon disulfide	ND	0.0100		mg/Kg	1	10/11/2012 8:48:22 PM
4-Chlorotoluene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
cis-1,2-DCE	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
cis-1,3-Dichloropropene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,2-Dibromo-3-chloropropane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Dibromochloromethane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Dibromomethane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,2-Dichlorobenzene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,3-Dichlorobenzene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,4-Dichlorobenzene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Dichlorodifluoromethane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,1-Dichloroethane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,1-Dichloroethene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,2-Dichloropropane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,3-Dichloropropane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
2,2-Dichloropropane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,1-Dichloropropene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Hexachlorobutadiene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Isopropylbenzene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
4-Isopropyltoluene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Methylene chloride	ND	0.00301		mg/Kg	1	10/11/2012 8:48:22 PM
n-Butylbenzene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
2-Hexanone	ND	0.0100		mg/Kg	1	10/11/2012 8:48:22 PM
n-Propylbenzene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
sec-Butylbenzene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Styrene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
4-Methyl-2-pentanone	ND	0.0100		mg/Kg	1	10/11/2012 8:48:22 PM
tert-Butylbenzene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,1,1,2-Tetrachloroethane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,1,2,2-Tetrachloroethane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Tetrachloroethene (PCE)	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
trans-1,2-DCE	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
trans-1,3-Dichloropropene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,2,3-Trichlorobenzene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,2,4-Trichlorobenzene	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,1,1-Trichloroethane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
1,1,2-Trichloroethane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Trichloroethene (TCE)	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Trichlorofluoromethane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-22 (4-6')
Project: SWMU No.14
Collection Date: 10/9/2012 5:20:00 PM
Lab ID: 1210583-003 **Matrix:** SOIL **Received Date:** 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Vinyl chloride	ND	0.00100		mg/Kg	1	10/11/2012 8:48:22 PM
Surr: 1,2-Dichloroethane-d4	91.6	70-130		%REC	1	10/11/2012 8:48:22 PM
Surr: 4-Bromofluorobenzene	90.0	70-130		%REC	1	10/11/2012 8:48:22 PM
Surr: Dibromofluoromethane	87.8	70-130		%REC	1	10/11/2012 8:48:22 PM
Surr: Toluene-d8	99.0	70-130		%REC	1	10/11/2012 8:48:22 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU No.14
Lab ID: 1210583-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-22 (4-6') DUP
Collection Date: 10/9/2012 5:20:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/12/2012 9:04:32 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/12/2012 9:04:32 AM
Surr: DNOP	96.1	77.6-140		%REC	1	10/12/2012 9:04:32 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2012 4:06:18 AM
Surr: BFB	105	84-116		%REC	1	10/13/2012 4:06:18 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 5:31:59 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/23/2012 8:28:35 PM
Arsenic	ND	5.0		mg/Kg	2	10/17/2012 12:21:23 PM
Barium	170	0.50		mg/Kg	5	10/17/2012 2:46:48 PM
Beryllium	0.84	0.30		mg/Kg	2	10/17/2012 12:21:23 PM
Cadmium	ND	0.20		mg/Kg	2	10/17/2012 12:21:23 PM
Chromium	6.8	0.60		mg/Kg	2	10/17/2012 12:21:23 PM
Cobalt	3.9	0.60		mg/Kg	2	10/17/2012 12:21:23 PM
Iron	12000	500		mg/Kg	500	10/17/2012 2:49:14 PM
Lead	4.2	0.50		mg/Kg	2	10/17/2012 12:21:23 PM
Manganese	230	0.50		mg/Kg	5	10/17/2012 2:46:48 PM
Nickel	6.5	1.0		mg/Kg	2	10/17/2012 12:21:23 PM
Selenium	ND	5.0		mg/Kg	2	10/23/2012 8:28:35 PM
Silver	ND	0.50		mg/Kg	2	10/17/2012 12:21:23 PM
Vanadium	12	5.0		mg/Kg	2	10/17/2012 12:21:23 PM
Zinc	12	5.0		mg/Kg	2	10/17/2012 12:21:23 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Aniline	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Anthracene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Azobenzene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/13/2012 12:13:42 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-22 (4-6') DUP
Project: SWMU No.14
Collection Date: 10/9/2012 5:20:00 PM
Lab ID: 1210583-004 **Matrix:** SOIL **Received Date:** 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/13/2012 12:13:42 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Carbazole	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/13/2012 12:13:42 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/13/2012 12:13:42 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/13/2012 12:13:42 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Chrysene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/13/2012 12:13:42 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/13/2012 12:13:42 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/13/2012 12:13:42 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/13/2012 12:13:42 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/13/2012 12:13:42 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/13/2012 12:13:42 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/13/2012 12:13:42 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/13/2012 12:13:42 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/13/2012 12:13:42 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Fluorene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Isophorone	ND	0.50		mg/Kg	1	10/13/2012 12:13:42 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/13/2012 12:13:42 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Naphthalene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU No.14
Lab ID: 1210583-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-22 (4-6') DUP
Collection Date: 10/9/2012 5:20:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
3-Nitroaniline	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/13/2012 12:13:42 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/13/2012 12:13:42 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/13/2012 12:13:42 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/13/2012 12:13:42 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Phenol	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Pyrene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Pyridine	ND	0.50		mg/Kg	1	10/13/2012 12:13:42 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/13/2012 12:13:42 AM
Surr: 2,4,6-Tribromophenol	79.0	21.3-145		%REC	1	10/13/2012 12:13:42 AM
Surr: 2-Fluorobiphenyl	80.0	20-131		%REC	1	10/13/2012 12:13:42 AM
Surr: 2-Fluorophenol	66.4	11.9-130		%REC	1	10/13/2012 12:13:42 AM
Surr: 4-Terphenyl-d14	66.3	25.1-149		%REC	1	10/13/2012 12:13:42 AM
Surr: Nitrobenzene-d5	81.2	25.6-137		%REC	1	10/13/2012 12:13:42 AM
Surr: Phenol-d5	79.3	20.3-132		%REC	1	10/13/2012 12:13:42 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: RAA
Benzene	0.00171	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Toluene	0.00120	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Ethylbenzene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Xylenes, Total	ND	0.00184		mg/Kg	1	10/11/2012 9:19:09 PM
Methyl tert-butyl ether (MTBE)	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,2,4-Trimethylbenzene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,3,5-Trimethylbenzene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,2-Dichloroethane (EDC)	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,2-Dibromoethane (EDB)	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Naphthalene	ND	0.00184		mg/Kg	1	10/11/2012 9:19:09 PM
1-Methylnaphthalene	ND	0.00369		mg/Kg	1	10/11/2012 9:19:09 PM
2-Methylnaphthalene	ND	0.00369		mg/Kg	1	10/11/2012 9:19:09 PM
Acetone	0.0149	0.00922		mg/Kg	1	10/11/2012 9:19:09 PM
Bromobenzene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Bromodichloromethane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Bromoform	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Bromomethane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
2-Butanone	ND	0.00922		mg/Kg	1	10/11/2012 9:19:09 PM
Carbon tetrachloride	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Chlorobenzene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Chloroethane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU No.14
Lab ID: 1210583-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-22 (4-6') DUP
Collection Date: 10/9/2012 5:20:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: RAA
Chloroform	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Chloromethane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
2-Chlorotoluene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Carbon disulfide	ND	0.00922		mg/Kg	1	10/11/2012 9:19:09 PM
4-Chlorotoluene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
cis-1,2-DCE	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
cis-1,3-Dichloropropene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,2-Dibromo-3-chloropropane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Dibromochloromethane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Dibromomethane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,2-Dichlorobenzene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,3-Dichlorobenzene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,4-Dichlorobenzene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Dichlorodifluoromethane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,1-Dichloroethane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,1-Dichloroethene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,2-Dichloropropane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,3-Dichloropropane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
2,2-Dichloropropane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,1-Dichloropropene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Hexachlorobutadiene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Isopropylbenzene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
4-Isopropyltoluene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Methylene chloride	ND	0.00277		mg/Kg	1	10/11/2012 9:19:09 PM
n-Butylbenzene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
2-Hexanone	ND	0.00922		mg/Kg	1	10/11/2012 9:19:09 PM
n-Propylbenzene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
sec-Butylbenzene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Styrene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
4-Methyl-2-pentanone	ND	0.00922		mg/Kg	1	10/11/2012 9:19:09 PM
tert-Butylbenzene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,1,1,2-Tetrachloroethane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,1,2,2-Tetrachloroethane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Tetrachloroethene (PCE)	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
trans-1,2-DCE	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
trans-1,3-Dichloropropene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,2,3-Trichlorobenzene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,2,4-Trichlorobenzene	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,1,1-Trichloroethane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
1,1,2-Trichloroethane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Trichloroethene (TCE)	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Trichlorofluoromethane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU No.14
Lab ID: 1210583-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-22 (4-6') DUP
Collection Date: 10/9/2012 5:20:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Vinyl chloride	ND	0.000922		mg/Kg	1	10/11/2012 9:19:09 PM
Surr: 1,2-Dichloroethane-d4	93.7	70-130		%REC	1	10/11/2012 9:19:09 PM
Surr: 4-Bromofluorobenzene	93.4	70-130		%REC	1	10/11/2012 9:19:09 PM
Surr: Dibromofluoromethane	94.8	70-130		%REC	1	10/11/2012 9:19:09 PM
Surr: Toluene-d8	87.1	70-130		%REC	1	10/11/2012 9:19:09 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-22 (8-10')
Project: SWMU No.14
Collection Date: 10/9/2012 5:30:00 PM
Lab ID: 1210583-005
Matrix: SOIL
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/12/2012 10:15:10 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/12/2012 10:15:10 AM
Surr: DNOP	105	77.6-140		%REC	1	10/12/2012 10:15:10 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/13/2012 4:35:03 AM
Surr: BFB	104	84-116		%REC	1	10/13/2012 4:35:03 AM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 5:33:45 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/23/2012 8:30:59 PM
Arsenic	ND	5.0		mg/Kg	2	10/17/2012 12:28:03 PM
Barium	250	1.0		mg/Kg	10	10/17/2012 2:51:50 PM
Beryllium	0.80	0.30		mg/Kg	2	10/17/2012 12:28:03 PM
Cadmium	ND	0.20		mg/Kg	2	10/17/2012 12:28:03 PM
Chromium	9.3	0.60		mg/Kg	2	10/17/2012 12:28:03 PM
Cobalt	3.8	0.60		mg/Kg	2	10/17/2012 12:28:03 PM
Iron	13000	500		mg/Kg	500	10/17/2012 2:54:18 PM
Lead	3.9	0.50		mg/Kg	2	10/17/2012 12:28:03 PM
Manganese	270	1.0		mg/Kg	10	10/17/2012 2:51:50 PM
Nickel	7.4	1.0		mg/Kg	2	10/17/2012 12:28:03 PM
Selenium	ND	5.0		mg/Kg	2	10/23/2012 8:30:59 PM
Silver	ND	0.50		mg/Kg	2	10/17/2012 12:28:03 PM
Vanadium	13	5.0		mg/Kg	2	10/17/2012 12:28:03 PM
Zinc	14	5.0		mg/Kg	2	10/17/2012 12:28:03 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Aniline	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Anthracene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Azobenzene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/13/2012 12:42:33 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU No.14
Lab ID: 1210583-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-22 (8-10')
Collection Date: 10/9/2012 5:30:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/13/2012 12:42:33 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Carbazole	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/13/2012 12:42:33 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/13/2012 12:42:33 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/13/2012 12:42:33 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Chrysene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/13/2012 12:42:33 AM
Di-n-octyl phthalate	ND	0.25		mg/Kg	1	10/13/2012 12:42:33 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/13/2012 12:42:33 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/13/2012 12:42:33 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/13/2012 12:42:33 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/13/2012 12:42:33 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/13/2012 12:42:33 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/13/2012 12:42:33 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/13/2012 12:42:33 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Fluorene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Isophorone	ND	0.50		mg/Kg	1	10/13/2012 12:42:33 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/13/2012 12:42:33 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Naphthalene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-22 (8-10')
Project: SWMU No.14
Collection Date: 10/9/2012 5:30:00 PM
Lab ID: 1210583-005 **Matrix:** SOIL **Received Date:** 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/13/2012 12:42:33 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/13/2012 12:42:33 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/13/2012 12:42:33 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/13/2012 12:42:33 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Phenol	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Pyrene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Pyridine	ND	0.50		mg/Kg	1	10/13/2012 12:42:33 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/13/2012 12:42:33 AM
Surr: 2,4,6-Tribromophenol	70.9	21.3-145		%REC	1	10/13/2012 12:42:33 AM
Surr: 2-Fluorobiphenyl	69.8	20-131		%REC	1	10/13/2012 12:42:33 AM
Surr: 2-Fluorophenol	69.4	11.9-130		%REC	1	10/13/2012 12:42:33 AM
Surr: 4-Terphenyl-d14	58.7	25.1-149		%REC	1	10/13/2012 12:42:33 AM
Surr: Nitrobenzene-d5	75.0	25.6-137		%REC	1	10/13/2012 12:42:33 AM
Surr: Phenol-d5	76.1	20.3-132		%REC	1	10/13/2012 12:42:33 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Benzene	0.00171	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Toluene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Ethylbenzene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Xylenes, Total	ND	0.00224		mg/Kg	1	10/11/2012 9:49:58 PM
Methyl tert-butyl ether (MTBE)	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,2,4-Trimethylbenzene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,3,5-Trimethylbenzene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,2-Dichloroethane (EDC)	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,2-Dibromoethane (EDB)	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Naphthalene	ND	0.00224		mg/Kg	1	10/11/2012 9:49:58 PM
1-Methylnaphthalene	ND	0.00448		mg/Kg	1	10/11/2012 9:49:58 PM
2-Methylnaphthalene	ND	0.00448		mg/Kg	1	10/11/2012 9:49:58 PM
Acetone	ND	0.0112		mg/Kg	1	10/11/2012 9:49:58 PM
Bromobenzene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Bromodichloromethane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Bromoform	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Bromomethane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
2-Butanone	ND	0.0112		mg/Kg	1	10/11/2012 9:49:58 PM
Carbon tetrachloride	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Chlorobenzene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Chloroethane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU No.14
Lab ID: 1210583-005 **Matrix:** SOIL

Client Sample ID: SWMU 14-22 (8-10')
Collection Date: 10/9/2012 5:30:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Chloromethane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
2-Chlorotoluene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Carbon disulfide	ND	0.0112		mg/Kg	1	10/11/2012 9:49:58 PM
4-Chlorotoluene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
cis-1,2-DCE	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
cis-1,3-Dichloropropene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,2-Dibromo-3-chloropropane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Dibromochloromethane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Dibromomethane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,2-Dichlorobenzene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,3-Dichlorobenzene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,4-Dichlorobenzene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Dichlorodifluoromethane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,1-Dichloroethane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,1-Dichloroethene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,2-Dichloropropane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,3-Dichloropropane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
2,2-Dichloropropane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,1-Dichloropropene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Hexachlorobutadiene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Isopropylbenzene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
4-Isopropyltoluene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Methylene chloride	ND	0.00336		mg/Kg	1	10/11/2012 9:49:58 PM
n-Butylbenzene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
2-Hexanone	ND	0.0112		mg/Kg	1	10/11/2012 9:49:58 PM
n-Propylbenzene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
sec-Butylbenzene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Styrene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
4-Methyl-2-pentanone	ND	0.0112		mg/Kg	1	10/11/2012 9:49:58 PM
tert-Butylbenzene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,1,1,2-Tetrachloroethane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,1,2,2-Tetrachloroethane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Tetrachloroethene (PCE)	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
trans-1,2-DCE	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
trans-1,3-Dichloropropene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,2,3-Trichlorobenzene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,2,4-Trichlorobenzene	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,1,1-Trichloroethane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
1,1,2-Trichloroethane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Trichloroethene (TCE)	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Trichlorofluoromethane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-22 (8-10')
Project: SWMU No.14
Collection Date: 10/9/2012 5:30:00 PM
Lab ID: 1210583-005 **Matrix:** SOIL **Received Date:** 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Vinyl chloride	ND	0.00112		mg/Kg	1	10/11/2012 9:49:58 PM
Surr: 1,2-Dichloroethane-d4	94.5	70-130		%REC	1	10/11/2012 9:49:58 PM
Surr: 4-Bromofluorobenzene	86.2	70-130		%REC	1	10/11/2012 9:49:58 PM
Surr: Dibromofluoromethane	98.4	70-130		%REC	1	10/11/2012 9:49:58 PM
Surr: Toluene-d8	95.5	70-130		%REC	1	10/11/2012 9:49:58 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 121012038
Project Name: 1210583

Analytical Results Report

Sample Number 121012038-001 **Sampling Date** 10/9/2012 **Date/Time Received** 10/12/2012 12:16 P
Client Sample ID 1210583-001D / SWMU 14-22 (0-0.5) **Sampling Time** 4:45 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/23/2012	CRW	EPA 335.4	
%moisture	2.4	Percent		10/24/2012	CRW	%moisture	

Sample Number 121012038-002 **Sampling Date** 10/9/2012 **Date/Time Received** 10/12/2012 12:16 P
Client Sample ID 1210583-002D / SWMU 14-22 (1.5-2) **Sampling Time** 4:55 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/23/2012	CRW	EPA 335.4	
%moisture	9.2	Percent		10/24/2012	CRW	%moisture	

Sample Number 121012038-003 **Sampling Date** 10/9/2012 **Date/Time Received** 10/12/2012 12:16 P
Client Sample ID 1210583-003D / SWMU 14-22 (4-6) **Sampling Time** 5:20 PM
Matrix Soil **Sample Location**
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/23/2012	CRW	EPA 335.4	
%moisture	18.3	Percent		10/24/2012	CRW	%moisture	

Anatek Labs, Inc.

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Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	121012038
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1210583
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	121012038-004	**Sampling Date**	10/9/2012	**Date/Time Received**	10/12/2012 12:16 P
Client Sample ID	1210583-004D / SWMU 14-22 (4-6) DUP			**Sampling Time**	5:20 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/23/2012	CRW	EPA 335.4	
%moisture	17.3	Percent		10/24/2012	CRW	%moisture	

Sample Number	121012038-005	**Sampling Date**	10/9/2012	**Date/Time Received**	10/12/2012 12:16 P
Client Sample ID	1210583-005D / SWMU 14-22 (8-10)			**Sampling Time**	5:30 PM
Matrix	Soil	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/23/2012	CRW	EPA 335.4	
%moisture	20.8	Percent		10/24/2012	CRW	%moisture	

Authorized Signature

John Coddington, Lab Manager

MCL	EPA's Maximum Contaminant Level
ND	Not Detected
PQL	Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210583**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU No.14

Sample ID **MB-4254**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **4254**	RunNo: **6180**
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **178120** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		103	77.6	140			

Sample ID **LCS-4254**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **4254**	RunNo: **6180**
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **178205** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	84.4	52.6	130			
Surr: DNOP	4.4		5.000		88.5	77.6	140			

Sample ID **1210582-001CMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **4254**	RunNo: **6180**
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **178471** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	9.9	49.60	0	115	57.2	146			
Surr: DNOP	3.3		4.960		65.9	77.6	140			S

Sample ID **1210582-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Diesel Range Organics**
Client ID: **BatchQC**	Batch ID: **4254**	RunNo: **6180**
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **178474** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	61	9.9	49.26	0	123	57.2	146	6.62	24.5	
Surr: DNOP	3.5		4.926		71.7	77.6	140	0	0	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210583**

12-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU No.14

Sample ID	5ML RB	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBS	Batch ID:	R6205	RunNo:	6205					
Prep Date:		Analysis Date:	10/12/2012	SeqNo:	178737	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		103	84	116			

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSS	Batch ID:	R6205	RunNo:	6205					
Prep Date:		Analysis Date:	10/12/2012	SeqNo:	178738	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	114	74	117			
Surr: BFB	1100		1000		111	84	116			

Sample ID	1210582-004BMS	SampType:	MS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R6205	RunNo:	6205					
Prep Date:		Analysis Date:	10/12/2012	SeqNo:	178751	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	7.2	5.0	18.26	0	39.3	70	130			S
Surr: BFB	780		730.5		107	84	116			

Sample ID	1210582-004BMSD	SampType:	MSD	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	BatchQC	Batch ID:	R6205	RunNo:	6205					
Prep Date:		Analysis Date:	10/12/2012	SeqNo:	178752	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	16	5.0	18.26	0	87.4	70	130	76.0	22.1	R
Surr: BFB	800		730.5		109	84	116	0	0	

Sample ID	B27	SampType:	MBLK	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	PBS	Batch ID:	R6205	RunNo:	6205					
Prep Date:		Analysis Date:	10/12/2012	SeqNo:	178761	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		105	84	116			

Sample ID	2.5UG GRO LCS-II	SampType:	LCS	TestCode:	EPA Method 8015B: Gasoline Range					
Client ID:	LCSS	Batch ID:	R6205	RunNo:	6205					
Prep Date:		Analysis Date:	10/13/2012	SeqNo:	178762	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	74	117			
Surr: BFB	1100		1000		112	84	116			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210583**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU No.14

Sample ID **1210653-005BMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178768** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	102	70	130			
Surr: BFB	1100		1000		113	84	116			

Sample ID **1210653-005BMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6205**	RunNo: **6205**
Prep Date:	Analysis Date: **10/12/2012**	SeqNo: **178769** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	70	130	7.96	22.1	
Surr: BFB	1200		1000		117	84	116	0	0	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210583**

12-Nov-12

t: Western Refining Southwest, Gallup
Project: SWMU No.14

Sample ID **mb-4251**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**	
Client ID: **PBS**	Batch ID: **4251**	RunNo: **6184**	
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **178168**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
Naphthalene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
[illegible]ıone	ND	0.0100								
C[illegible]ɔn tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								

[illegible]fiers:

[illegible] Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH greater than 2
B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210583**

12-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU No.14

Sample ID **mb-4251**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4251**	RunNo: **6184**
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **178168** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	45.4		50.00		90.7	70	130			
Surr: 4-Bromofluorobenzene	44.5		50.00		89.0	70	130			
Surr: Dibromofluoromethane	45.4		50.00		90.9	70	130			
Surr: Toluene-d8	43.9		50.00		87.8	70	130			

Sample ID **lcs-4251**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4251**	RunNo: **6184**
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **180403** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	9.63	1.00	10.00	0	96.3	60	140			
Toluene	9.93	1.00	10.00	0	99.3	60	140			
Chlorobenzene	10.3	1.00	10.00	0	103	60	140			
1,1-Dichloroethene	11.1	1.00	10.00	0	111	60	140			
Trichloroethene (TCE)	8.17	1.00	10.00	0	81.7	60	140			
Surr: 1,2-Dichloroethane-d4	45.2		50.00		90.4	70	130			
Surr: 4-Bromofluorobenzene	45.7		50.00		91.4	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210583**

12-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU No.14

Sample ID **lcs-4251**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**	
Client ID: **LCSS**	Batch ID: **4251**	RunNo: **6184**	
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **180403**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	46.8		50.00		93.5	70	130			
Surr: Toluene-d8	49.1		50.00		98.2	70	130			

Qualifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210583**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU No.14

Sample ID **mb-4255**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBS**	Batch ID: **4255**	RunNo: **6206**	
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **178793**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210583**

12-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU No.14

Sample ID **mb-4255**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4255**	RunNo: **6206**
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **178793** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
[illegible]aniline	ND	0.40								
[illegible]benzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.2		3.330		96.6	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.670		90.7	20	131			
Surr: 2-Fluorophenol	3.0		3.330		91.3	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		76.4	25.1	149			
Surr: Nitrobenzene-d5	1.6		1.670		93.7	25.6	137			
Surr: Phenol-d5	3.1		3.330		94.4	20.3	132			

Sample ID **lcs-4255**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4255**	RunNo: **6206**
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **178794** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210583**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU No.14

Sample ID **lcs-4255**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4255**	RunNo: **6206**
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **178794** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	73.9	49.7	98.1			
4-Chloro-3-methylphenol	2.7	0.50	3.330	0	80.8	43.8	89.1			
2-Chlorophenol	2.2	0.20	3.330	0	67.4	41.1	96.9			
1,4-Dichlorobenzene	1.1	0.20	1.670	0	67.6	41	97.4			
2,4-Dinitrotoluene	1.5	0.50	1.670	0	89.6	44.4	104			
N-Nitrosodi-n-propylamine	1.4	0.20	1.670	0	81.4	39.1	86.9			
4-Nitrophenol	2.6	0.25	3.330	0	77.3	44.2	107			
Pentachlorophenol	2.1	0.40	3.330	0	62.9	36.2	80			
Phenol	2.4	0.20	3.330	0	72.3	42.7	92.7			
Pyrene	1.3	0.20	1.670	0	77.2	34.7	98.8			
1,2,4-Trichlorobenzene	1.2	0.20	1.670	0	71.3	37.8	98.3			
Surr: 2,4,6-Tribromophenol	2.9		3.330		87.6	21.3	145			
Surr: 2-Fluorobiphenyl	1.3		1.670		76.3	20	131			
Surr: 2-Fluorophenol	2.2		3.330		66.5	11.9	130			
Surr: 4-Terphenyl-d14	1.2		1.670		74.0	25.1	149			
Surr: Nitrobenzene-d5	1.3		1.670		77.6	25.6	137			
Surr: Phenol-d5	2.6		3.330		77.6	20.3	132			

Sample ID **1210582-001Cms**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **BatchQC**	Batch ID: **4255**	RunNo: **6206**
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **178807** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	0.91	0.40	1.667	0.1738	44.2	38.6	100			
4-Chloro-3-methylphenol	1.9	1.0	3.324	0	55.7	35.8	108			
2-Chlorophenol	1.7	0.40	3.324	0	51.8	48.2	96.1			
1,4-Dichlorobenzene	0.85	0.40	1.667	0	51.1	42.5	97.6			
2,4-Dinitrotoluene	ND	1.0	1.667	0	42.5	51.2	108			S
N-Nitrosodi-n-propylamine	1.0	0.40	1.667	0	61.2	31.6	114			
4-Nitrophenol	1.9	0.50	3.324	0	58.2	22.7	144			
Pentachlorophenol	1.5	0.80	3.324	0	46.2	24	109			
Phenol	1.8	0.40	3.324	0	54.0	33.1	108			
Pyrene	0.90	0.40	1.667	0	53.9	42.7	98.9			
1,2,4-Trichlorobenzene	0.85	0.40	1.667	0	50.7	27.1	118			
Surr: 2,4,6-Tribromophenol	2.0		3.324		59.6	21.3	145			
Surr: 2-Fluorobiphenyl	0.91		1.667		54.4	20	131			
Surr: 2-Fluorophenol	1.8		3.324		53.2	11.9	130			
Surr: 4-Terphenyl-d14	0.85		1.667		51.2	25.1	149			
Surr: Nitrobenzene-d5	0.89		1.667		53.3	25.6	137			
Surr: Phenol-d5	2.1		3.324		62.2	20.3	132			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210583**

12-Nov-12

ıt: Western Refining Southwest, Gallup

Project: SWMU No.14

Sample ID **1210582-001Cmsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **BatchQC**	Batch ID: **4255**	RunNo: **6206**	
Prep Date: **10/11/2012**	Analysis Date: **10/12/2012**	SeqNo: **178808**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	0.76	0.40	1.660	0.1738	35.2	38.6	100	18.3	20	S
4-Chloro-3-methylphenol	1.6	0.99	3.310	0	47.7	35.8	108	15.8	20	
2-Chlorophenol	1.5	0.40	3.310	0	44.1	48.2	96.1	16.5	20	S
1,4-Dichlorobenzene	0.67	0.40	1.660	0	40.4	42.5	97.6	23.7	20	SR
2,4-Dinitrotoluene	ND	0.99	1.660	0	33.7	51.2	108	0	20	SR
N-Nitrosodi-n-propylamine	0.77	0.40	1.660	0	46.3	31.6	114	28.0	20	R
4-Nitrophenol	1.6	0.50	3.310	0	48.0	22.7	144	19.5	20	
Pentachlorophenol	1.3	0.80	3.310	0	38.4	24	109	19.0	20	
Phenol	1.4	0.40	3.310	0	43.3	33.1	108	22.5	20	R
Pyrene	0.74	0.40	1.660	0	44.7	42.7	98.9	19.0	20	
1,2,4-Trichlorobenzene	0.69	0.40	1.660	0	41.5	27.1	118	20.3	20	R
Surr: 2,4,6-Tribromophenol	1.6		3.310		48.8	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	0.72		1.660		43.6	20	131	0	0	
Surr: 2-Fluorophenol	1.5		3.310		44.6	11.9	130	0	0	
Surr: 4-Terphenyl-d14	0.68		1.660		41.2	25.1	149	0	0	
Surr: Nitrobenzene-d5	0.71		1.660		42.8	25.6	137	0	0	
Surr: Phenol-d5	1.6		3.310		47.6	20.3	132	0	0	

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210583**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU No.14

Sample ID	MB-4317	SampType:	mblk	TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	4317	RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012	SeqNo:	180708	Units:	mg/kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-4317	SampType:	lcs	TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	4317	RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012	SeqNo:	180709	Units:	mg/kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1667	0	98.7	80	120			

Sample ID	1210656-004CMS	SampType:	ms	TestCode:	EPA Method 7471: Mercury				
Client ID:	BatchQC	Batch ID:	4317	RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012	SeqNo:	180735	Units:	mg/kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1654	0	96.4	75	125			

Sample ID	1210656-004CMSD	SampType:	msd	TestCode:	EPA Method 7471: Mercury				
Client ID:	BatchQC	Batch ID:	4317	RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012	SeqNo:	180736	Units:	mg/kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1655	0	96.8	75	125	0.493	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210583**

12-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU No.14

Sample ID	MB-4300	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS	Batch ID:	4300	RunNo:	6281				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012	SeqNo:	181006	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	ND	0.25								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID	LCS-4300	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	LCSS	Batch ID:	4300	RunNo:	6281				
Date:	10/15/2012	Analysis Date:	10/16/2012	SeqNo:	181012	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	24	2.5	25.00	0.9150	90.4	80	120			
Arsenic	27	2.5	25.00	0	107	80	120			
Barium	25	0.10	25.00	0	101	80	120			
Beryllium	27	0.15	25.00	0	108	80	120			
Cadmium	26	0.10	25.00	0	104	80	120			
Chromium	25	0.30	25.00	0	100	80	120			
Cobalt	25	0.30	25.00	0	100	80	120			
Lead	26	0.25	25.00	0	103	80	120			
Manganese	25	0.10	25.00	0.05000	99.4	80	120			
Nickel	25	0.50	25.00	0	99.0	80	120			
Selenium	26	2.5	25.00	0	105	80	120			
Silver	5.2	0.25	5.000	0	104	80	120			
Vanadium	26	2.5	25.00	0	103	80	120			
Zinc	26	2.5	25.00	0	104	80	120			

Sample ID	MB-4300	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals				
Client ID:	PBS	Batch ID:	4300	RunNo:	6310				
Prep Date:	10/15/2012	Analysis Date:	10/17/2012	SeqNo:	181592	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	1.0								

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210583**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU No.14

Sample ID **LCS-4300** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **4300** RunNo: **6310**
Prep Date: **10/15/2012** Analysis Date: **10/17/2012** SeqNo: **181593** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	27	1.0	25.00	0	108	80	120			

Sample ID **1210583-001CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **SWMU 14-22 (0-0.5')** Batch ID: **4300** RunNo: **6310**
Prep Date: **10/15/2012** Analysis Date: **10/17/2012** SeqNo: **181667** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	25	0.75	24.84	0.8953	96.7	75	125			
Cadmium	22	0.50	24.84	0	90.2	75	125			
Chromium	31	1.5	24.84	12.41	74.0	75	125			S
Cobalt	26	1.5	24.84	5.546	80.5	75	125			
Lead	26	1.3	24.84	5.875	81.9	75	125			
Nickel	29	2.5	24.84	8.319	83.0	75	125			
Silver	4.6	1.3	4.967	0	92.2	75	125			
Vanadium	47	13	24.84	25.45	86.0	75	125			
Zinc	49	13	24.84	33.40	64.7	75	125			S

Sample ID **1210583-001CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **SWMU 14-22 (0-0.5')** Batch ID: **4300** RunNo: **6310**
Prep Date: **10/15/2012** Analysis Date: **10/17/2012** SeqNo: **181668** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	26	0.75	24.89	0.8953	101	75	125	4.27	20	
Cadmium	23	0.50	24.89	0	94.2	75	125	4.55	20	
Chromium	33	1.5	24.89	12.41	83.0	75	125	7.15	20	
Cobalt	27	1.5	24.89	5.546	85.8	75	125	5.17	20	
Lead	28	1.2	24.89	5.875	87.0	75	125	4.93	20	
Nickel	30	2.5	24.89	8.319	88.6	75	125	4.90	20	
Silver	4.9	1.2	4.978	0	98.0	75	125	6.31	20	
Vanadium	48	12	24.89	25.45	91.4	75	125	2.90	20	
Zinc	58	12	24.89	33.40	98.3	75	125	15.6	20	

Sample ID **1210583-001CMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **SWMU 14-22 (0-0.5')** Batch ID: **4300** RunNo: **6437**
Prep Date: **10/15/2012** Analysis Date: **10/23/2012** SeqNo: **185157** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	12	24.84	0	30.6	75	125			S
Arsenic	25	12	24.84	0	102	75	125			
Selenium	13	12	24.84	0	53.6	75	125			S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210583**

12-Nov-12

t: Western Refining Southwest, Gallup

Project: SWMU No.14

Sample ID **1210583-001CMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**

Client ID: **SWMU 14-22 (0-0.5')** Batch ID: **4300** RunNo: **6437**

Prep Date: **10/15/2012** Analysis Date: **10/23/2012** SeqNo: **185160** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	12	24.89	0	34.4	75	125	0	20	S
Arsenic	26	12	24.89	0	105	75	125	3.33	20	
Selenium	16	12	24.89	0	62.7	75	125	16.0	20	S

fiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1210583

Received by/date: MG 10/11/12

Logged By: Michelle Garcia 10/11/2012 8:00:00 AM Michelle Garcia

Completed By: Michelle Garcia 10/11/2012 8:42:39 AM Michelle Garcia

Reviewed By: 10/11/12

Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? FedEx

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: ☑ Yes ☐ No
Sample Temperature: 4.3

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210583	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/9/12	1645	SOIL	SWMU 14-22 (0-0.5)	2 VIALS	SOBI	-001										X						
	↓	↓	↓	2 VIALS	MEOH											X						
	↓	↓	↓	3 JARS	—											X	X	X	X			
	1655		SWMU 14-22 (1.5-2')	2 VIALS	SOBI	-002										X						
	↓		↓	2 VIALS	MEOH											X						
	↓		↓	3 JARS	—											X	X	X	X			
	1720		SWMU 14-22 (4-6')	2 VIALS	SOBI	-003										X						
	↓		↓	2 VIALS	MEOH											X						
	↓		↓	3 JARS	—											X	X	X	X			
	1720		SWMU 14-22 (4-6') DUP	2 VIALS	SOBI	-004										X						
	↓		↓	2 VIALS	MEOH											X						
	↓		↓	3 JARS	—											X	X	X	X			

Date: 10/10/12 Time: 0735 Relinquished by: [signature] —
Received by: [signature] Date: 10/11/12 Time: 0800
Date: Time: Relinquished by:
Received by: Date: Time:

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: ☐ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210583	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/9/12	1730	SOIL	SWMU 14-22 (8-10')	2 VIALS	SOBI	-005										X						
↓	↓	↓	↓	2 VIALS	MEOH											X						
↓	↓	↓	↓	3 JARS	—											X	X	X	X			

Date: 10/10/12 Time: 0735 Relinquished by: [signature] Received by: [signature] Date: 10/11/12 Time: 0800
Date: Time: Relinquished by: Received by: Date: Time:

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Rpt	T	Analyte	Units	Synonym	MDL	LOD	LOQ
☐	A	Aluminum	mg/Kg		0.4481	0	
☑	A	Antimony	mg/Kg		0.629	0	
☑	A	Arsenic	mg/Kg		0.6263	0	
☑	A	Barium	mg/Kg		0.0609	0	
☑	A	Beryllium	mg/Kg		0.0093	0	
☐	A	Boron	mg/Kg		0.0826	0	
☑	A	Cadmium	mg/Kg		0.0271	0	
☐	A	Calcium	mg/Kg		6.9713	0	
☑	A	Chromium	mg/Kg		0.1184	0	
☑	A	Cobalt	mg/Kg		0.0689	0	
☐	A	Copper	mg/Kg		0.2323	0	
☑	A	Iron	mg/Kg		0.7476	0	
☑	A	Lead	mg/Kg		0.2194	0	
☐	A	Magnesium	mg/Kg		0.4651	0	
☑	A	Manganese	mg/Kg		0.0212	0	
☐	A	Molybdenum	mg/Kg		0.1423	0	
☑	A	Nickel	mg/Kg		0.1668	0	
☐	A	Potassium	mg/Kg		17.3925	0	
☑	A	Selenium	mg/Kg		1.4025	0	
☑	A	Silver	mg/Kg		0.0354	0	
☐	A	Sodium	mg/Kg		8.4278	0	
☐	A	Thallium	mg/Kg		1.1557	0	
☐	A	Tin	mg/Kg		0.8261	0	
☐	A	Titanium	mg/Kg		0.0342	0	
☐	A	Uranium	mg/Kg		0.7296	0	
☑	A	Vanadium	mg/Kg		0.0565	0	
☑	A	Zinc	mg/Kg		1.0066	0	
☐	I	Yttrium	%		0	0	
☐	I	Yttrium Radial	%		0	0	
☐	X	Uranium-confirmation	mg/Kg		0	0	
☐	X	Silicon	mg/Kg		0	0	

+ Hg
+ Cn

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

October 30, 2012

Scott Crouch
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.14 OrderNo.: 1210585

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 2 sample(s) on 10/11/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB100912
Project: SWMU NO.14
Collection Date: 10/9/2012 6:00:00 PM
Lab ID: 1210585-001
Matrix: AQUEOUS
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/11/2012 6:39:12 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/11/2012 6:39:12 PM
Surr: DNOP	113	79.5-166		%REC	1	10/11/2012 6:39:12 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	ND	0.10		mg/L	1	10/11/2012 12:06:42 PM
Chloride	ND	0.50		mg/L	1	10/11/2012 12:06:42 PM
Sulfate	ND	0.50		mg/L	1	10/11/2012 12:06:42 PM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Barium	ND	0.0020		mg/L	1	10/12/2012 11:03:15 AM
Beryllium	ND	0.0020		mg/L	1	10/12/2012 11:03:15 AM
Cadmium	ND	0.0020		mg/L	1	10/12/2012 11:03:15 AM
Chromium	ND	0.0060		mg/L	1	10/12/2012 11:03:15 AM
Cobalt	ND	0.0060		mg/L	1	10/12/2012 11:03:15 AM
Iron	ND	0.020		mg/L	1	10/12/2012 11:03:15 AM
Manganese	ND	0.0020		mg/L	1	10/12/2012 11:03:15 AM
Nickel	ND	0.010		mg/L	1	10/12/2012 11:03:15 AM
Silver	ND	0.0050		mg/L	1	10/12/2012 11:03:15 AM
Vanadium	ND	0.050		mg/L	1	10/12/2012 11:03:15 AM
Zinc	ND	0.010		mg/L	1	10/12/2012 11:03:15 AM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0010		mg/L	1	10/17/2012 12:43:57 PM
Arsenic	ND	0.0010		mg/L	1	10/17/2012 12:43:57 PM
Lead	ND	0.0010		mg/L	1	10/17/2012 12:43:57 PM
Selenium	ND	0.0010		mg/L	1	10/17/2012 12:43:57 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	10/15/2012 6:58:13 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Acenaphthylene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Aniline	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Anthracene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Azobenzene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Benz(a)anthracene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Benzoic acid	ND	20		µg/L	1	10/14/2012 1:10:39 PM
Benzyl alcohol	ND	10		µg/L	1	10/14/2012 1:10:39 PM

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/14/2012 1:10:39 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Carbazole	ND	10		µg/L	1	10/14/2012 1:10:39 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/14/2012 1:10:39 PM
4-Chloroaniline	ND	10		µg/L	1	10/14/2012 1:10:39 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
2-Chlorophenol	ND	10		µg/L	1	10/14/2012 1:10:39 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Chrysene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Di-n-octyl phthalate	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Dibenzofuran	ND	10		µg/L	1	10/14/2012 1:10:39 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Diethyl phthalate	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Dimethyl phthalate	ND	10		µg/L	1	10/14/2012 1:10:39 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/14/2012 1:10:39 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/14/2012 1:10:39 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/14/2012 1:10:39 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/14/2012 1:10:39 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Fluoranthene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Fluorene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Hexachlorobenzene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Hexachloroethane	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Isophorone	ND	10		µg/L	1	10/14/2012 1:10:39 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
2-Methylphenol	ND	10		µg/L	1	10/14/2012 1:10:39 PM
3+4-Methylphenol	ND	10		µg/L	1	10/14/2012 1:10:39 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/14/2012 1:10:39 PM

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EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
N-Nitrosodimethylamine	ND	10		µg/L	1	10/14/2012 1:10:39 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Naphthalene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
2-Nitroaniline	ND	10		µg/L	1	10/14/2012 1:10:39 PM
3-Nitroaniline	ND	10		µg/L	1	10/14/2012 1:10:39 PM
4-Nitroaniline	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Nitrobenzene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
2-Nitrophenol	ND	10		µg/L	1	10/14/2012 1:10:39 PM
4-Nitrophenol	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Pentachlorophenol	ND	20		µg/L	1	10/14/2012 1:10:39 PM
Phenanthrene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Phenol	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Pyrene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Pyridine	ND	10		µg/L	1	10/14/2012 1:10:39 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/14/2012 1:10:39 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/14/2012 1:10:39 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/14/2012 1:10:39 PM
Surr: 2,4,6-Tribromophenol	70.3	44.2-126		%REC	1	10/14/2012 1:10:39 PM
Surr: 2-Fluorobiphenyl	53.4	37-114		%REC	1	10/14/2012 1:10:39 PM
Surr: 2-Fluorophenol	46.2	23.4-98		%REC	1	10/14/2012 1:10:39 PM
Surr: 4-Terphenyl-d14	65.5	41.3-116		%REC	1	10/14/2012 1:10:39 PM
Surr: Nitrobenzene-d5	55.4	39.5-118		%REC	1	10/14/2012 1:10:39 PM
Surr: Phenol-d5	35.2	20.9-95.9		%REC	1	10/14/2012 1:10:39 PM
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Benzene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
Toluene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
Ethylbenzene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
Naphthalene	ND	2.0		µg/L	1	10/11/2012 1:14:39 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/11/2012 1:14:39 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/11/2012 1:14:39 PM
Acetone	ND	10		µg/L	1	10/11/2012 1:14:39 PM
Bromobenzene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
Bromoform	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
Bromomethane	ND	3.0		µg/L	1	10/11/2012 1:14:39 PM
2-Butanone	ND	10		µg/L	1	10/11/2012 1:14:39 PM

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210585-001 **Matrix:** AQUEOUS

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Collection Date: 10/9/2012 6:00:00 PM
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Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Carbon disulfide	ND	10		µg/L	1	10/11/2012 1:14:39 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
Chlorobenzene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
Chloroethane	ND	2.0		µg/L	1	10/11/2012 1:14:39 PM
Chloroform	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
Chloromethane	ND	3.0		µg/L	1	10/11/2012 1:14:39 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/11/2012 1:14:39 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
Dibromomethane	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/11/2012 1:14:39 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
2-Hexanone	ND	10		µg/L	1	10/11/2012 1:14:39 PM
Isopropylbenzene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/11/2012 1:14:39 PM
Methylene Chloride	ND	3.0		µg/L	1	10/11/2012 1:14:39 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/11/2012 1:14:39 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
Styrene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/11/2012 1:14:39 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM

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1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/11/2012 1:14:39 PM
Vinyl chloride	ND	1.0		µg/L	1	10/11/2012 1:14:39 PM
Xylenes, Total	ND	1.5		µg/L	1	10/11/2012 1:14:39 PM
Surr: 1,2-Dichloroethane-d4	92.2	70-130		%REC	1	10/11/2012 1:14:39 PM
Surr: 4-Bromofluorobenzene	93.9	70-130		%REC	1	10/11/2012 1:14:39 PM
Surr: Dibromofluoromethane	92.5	70-130		%REC	1	10/11/2012 1:14:39 PM
Surr: Toluene-d8	92.0	70-130		%REC	1	10/11/2012 1:14:39 PM
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DJF**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/11/2012 1:14:39 PM
Surr: BFB	93.9	70-130		%REC	1	10/11/2012 1:14:39 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210585-002 **Matrix:** AQUEOUS

Client Sample ID: FB100912
Collection Date: 10/9/2012 6:15:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/11/2012 7:04:03 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/11/2012 7:04:03 PM
Surr: DNOP	115	79.5-166		%REC	1	10/11/2012 7:04:03 PM
EPA METHOD 300.0: ANIONS						Analyst: **JRR**
Fluoride	ND	0.10		mg/L	1	10/11/2012 12:56:20 PM
Chloride	ND	0.50		mg/L	1	10/11/2012 12:56:20 PM
Sulfate	ND	0.50		mg/L	1	10/11/2012 12:56:20 PM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Barium	ND	0.0020		mg/L	1	10/12/2012 11:15:11 AM
Beryllium	ND	0.0020		mg/L	1	10/12/2012 11:15:11 AM
Cadmium	ND	0.0020		mg/L	1	10/12/2012 11:15:11 AM
Chromium	ND	0.0060		mg/L	1	10/12/2012 11:15:11 AM
Cobalt	ND	0.0060		mg/L	1	10/12/2012 11:15:11 AM
Iron	ND	0.020		mg/L	1	10/12/2012 11:15:11 AM
Manganese	ND	0.0020		mg/L	1	10/12/2012 11:15:11 AM
Nickel	ND	0.010		mg/L	1	10/12/2012 11:15:11 AM
Silver	ND	0.0050		mg/L	1	10/12/2012 11:15:11 AM
Vanadium	ND	0.050		mg/L	1	10/12/2012 11:15:11 AM
Zinc	ND	0.010		mg/L	1	10/12/2012 11:15:11 AM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0010		mg/L	1	10/17/2012 12:51:48 PM
Arsenic	ND	0.0010		mg/L	1	10/17/2012 12:51:48 PM
Lead	ND	0.0010		mg/L	1	10/17/2012 12:51:48 PM
Selenium	ND	0.0010		mg/L	1	10/17/2012 12:51:48 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	10/15/2012 6:59:59 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Acenaphthylene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Aniline	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Anthracene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Azobenzene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Benz(a)anthracene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Benzoic acid	ND	20		µg/L	1	10/14/2012 1:40:00 PM
Benzyl alcohol	ND	10		µg/L	1	10/14/2012 1:40:00 PM

Qualifiers:

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J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB100912
Project: SWMU NO.14
Collection Date: 10/9/2012 6:15:00 PM
Lab ID: 1210585-002
Matrix: AQUEOUS
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/14/2012 1:40:00 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Carbazole	ND	10		µg/L	1	10/14/2012 1:40:00 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/14/2012 1:40:00 PM
4-Chloroaniline	ND	10		µg/L	1	10/14/2012 1:40:00 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
2-Chlorophenol	ND	10		µg/L	1	10/14/2012 1:40:00 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Chrysene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Di-n-octyl phthalate	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Dibenzofuran	ND	10		µg/L	1	10/14/2012 1:40:00 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Diethyl phthalate	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Dimethyl phthalate	ND	10		µg/L	1	10/14/2012 1:40:00 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/14/2012 1:40:00 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/14/2012 1:40:00 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/14/2012 1:40:00 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/14/2012 1:40:00 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Fluoranthene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Fluorene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Hexachlorobenzene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Hexachloroethane	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Isophorone	ND	10		µg/L	1	10/14/2012 1:40:00 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
2-Methylphenol	ND	10		µg/L	1	10/14/2012 1:40:00 PM
3+4-Methylphenol	ND	10		µg/L	1	10/14/2012 1:40:00 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/14/2012 1:40:00 PM

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P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210585-002
Matrix: AQUEOUS
Client Sample ID: FB100912
Collection Date: 10/9/2012 6:15:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
N-Nitrosodimethylamine	ND	10		µg/L	1	10/14/2012 1:40:00 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Naphthalene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
2-Nitroaniline	ND	10		µg/L	1	10/14/2012 1:40:00 PM
3-Nitroaniline	ND	10		µg/L	1	10/14/2012 1:40:00 PM
4-Nitroaniline	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Nitrobenzene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
2-Nitrophenol	ND	10		µg/L	1	10/14/2012 1:40:00 PM
4-Nitrophenol	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Pentachlorophenol	ND	20		µg/L	1	10/14/2012 1:40:00 PM
Phenanthrene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Phenol	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Pyrene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Pyridine	ND	10		µg/L	1	10/14/2012 1:40:00 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/14/2012 1:40:00 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/14/2012 1:40:00 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/14/2012 1:40:00 PM
Surr: 2,4,6-Tribromophenol	74.3	44.2-126		%REC	1	10/14/2012 1:40:00 PM
Surr: 2-Fluorobiphenyl	55.0	37-114		%REC	1	10/14/2012 1:40:00 PM
Surr: 2-Fluorophenol	46.8	23.4-98		%REC	1	10/14/2012 1:40:00 PM
Surr: 4-Terphenyl-d14	64.6	41.3-116		%REC	1	10/14/2012 1:40:00 PM
Surr: Nitrobenzene-d5	56.5	39.5-118		%REC	1	10/14/2012 1:40:00 PM
Surr: Phenol-d5	35.1	20.9-95.9		%REC	1	10/14/2012 1:40:00 PM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
Toluene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
Ethylbenzene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
Naphthalene	ND	2.0		µg/L	1	10/11/2012 3:06:43 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/11/2012 3:06:43 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/11/2012 3:06:43 PM
Acetone	ND	10		µg/L	1	10/11/2012 3:06:43 PM
Bromobenzene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
Bromoform	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
Bromomethane	ND	3.0		µg/L	1	10/11/2012 3:06:43 PM
2-Butanone	ND	10		µg/L	1	10/11/2012 3:06:43 PM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: FB100912
Project: SWMU NO.14
Collection Date: 10/9/2012 6:15:00 PM
Lab ID: 1210585-002
Matrix: AQUEOUS
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Carbon disulfide	ND	10		µg/L	1	10/11/2012 3:06:43 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
Chlorobenzene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
Chloroethane	ND	2.0		µg/L	1	10/11/2012 3:06:43 PM
Chloroform	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
Chloromethane	ND	3.0		µg/L	1	10/11/2012 3:06:43 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/11/2012 3:06:43 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
Dibromomethane	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/11/2012 3:06:43 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
2-Hexanone	ND	10		µg/L	1	10/11/2012 3:06:43 PM
Isopropylbenzene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/11/2012 3:06:43 PM
Methylene Chloride	ND	3.0		µg/L	1	10/11/2012 3:06:43 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/11/2012 3:06:43 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
Styrene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/11/2012 3:06:43 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210585-002 **Matrix:** AQUEOUS

Client Sample ID: FB100912
Collection Date: 10/9/2012 6:15:00 PM
Received Date: 10/11/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/11/2012 3:06:43 PM
Vinyl chloride	ND	1.0		µg/L	1	10/11/2012 3:06:43 PM
Xylenes, Total	ND	1.5		µg/L	1	10/11/2012 3:06:43 PM
Surr: 1,2-Dichloroethane-d4	93.0	70-130		%REC	1	10/11/2012 3:06:43 PM
Surr: 4-Bromofluorobenzene	95.3	70-130		%REC	1	10/11/2012 3:06:43 PM
Surr: Dibromofluoromethane	90.6	70-130		%REC	1	10/11/2012 3:06:43 PM
Surr: Toluene-d8	93.5	70-130		%REC	1	10/11/2012 3:06:43 PM
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DJF**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/11/2012 3:06:43 PM
Surr: BFB	95.3	70-130		%REC	1	10/11/2012 3:06:43 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	121012023
Address:	4901 HAWKINS NE SUITE D	**Project Name:**	1210585
	ALBUQUERQUE, NM 87109		
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	121012023-001	**Sampling Date**	10/9/2012	**Date/Time Received**	10/12/2012 12:10 PM
Client Sample ID	1210585-001E / EB100912			**Sampling Time**	6:00 PM
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	10/22/2012	CRW	EPA 335.4	

Sample Number	121012023-002	**Sampling Date**	10/9/2012	**Date/Time Received**	10/12/2012 12:10 PM
Client Sample ID	1210585-002E / FB100912			**Sampling Time**	6:15 PM
Matrix	Water	**Sample Location**			
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	10/22/2012	CRW	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

MCL	EPA's Maximum Contaminant Level
ND	Not Detected
PQL	Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E67893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210585**

30-Oct-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB** SampType: **MBLK** TestCode: **EPA Method 200.7: Metals**

Client ID: **PBW** Batch ID: **R6212** RunNo: **6212**

Prep Date: Analysis Date: **10/12/2012** SeqNo: **178907** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID **LCS** SampType: **LCS** TestCode: **EPA Method 200.7: Metals**

Client ID: **LCSW** Batch ID: **R6212** RunNo: **6212**

Prep Date: Analysis Date: **10/12/2012** SeqNo: **178908** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Beryllium	0.52	0.0020	0.5000	0	105	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Cobalt	0.49	0.0060	0.5000	0	98.2	85	115			
Iron	0.50	0.020	0.5000	0	99.7	85	115			
Manganese	0.49	0.0020	0.5000	0	98.8	85	115			
Nickel	0.48	0.010	0.5000	0	96.6	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Vanadium	0.52	0.050	0.5000	0	105	85	115			
Zinc	0.51	0.010	0.5000	0	101	85	115			

Sample ID **1210368-001BMS** SampType: **MS** TestCode: **EPA Method 200.7: Metals**

Client ID: **BatchQC** Batch ID: **R6212** RunNo: **6212**

Prep Date: Analysis Date: **10/12/2012** SeqNo: **178913** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.50	0.0060	0.5000	0	101	70	130			

Sample ID **1210368-001BMSD** SampType: **MSD** TestCode: **EPA Method 200.7: Metals**

Client ID: **BatchQC** Batch ID: **R6212** RunNo: **6212**

Prep Date: Analysis Date: **10/12/2012** SeqNo: **178914** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	0.50	0.0060	0.5000	0	99.2	70	130	1.42	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210585**

30-Oct-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	1210046-001AMS	SampType:	MS		TestCode:	EPA 200.8: Metals				
Client ID:	BatchQC	Batch ID:	R6315		RunNo:	6315				
Prep Date:		Analysis Date:	10/17/2012		SeqNo:	181878	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.027	0.0010	0.02500	0.001891	99.5	70	130			

Sample ID	1210367-001BMS	SampType:	MS		TestCode:	EPA 200.8: Metals				
Client ID:	BatchQC	Batch ID:	R6315		RunNo:	6315				
Prep Date:		Analysis Date:	10/17/2012		SeqNo:	181885	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	98.6	70	130			
Arsenic	0.035	0.0010	0.02500	0.01018	101	70	130			
Selenium	0.031	0.0010	0.02500	0.005490	104	70	130			

Sample ID	LCS	SampType:	LCS		TestCode:	EPA 200.8: Metals				
Client ID:	LCSW	Batch ID:	R6315		RunNo:	6315				
Prep Date:		Analysis Date:	10/17/2012		SeqNo:	181905	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	101	85	115			
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
	0.025	0.0010	0.02500	0	99.9	85	115			
Selenium	0.026	0.0010	0.02500	0	106	85	115			

Sample ID	LCS	SampType:	LCS		TestCode:	EPA 200.8: Metals				
Client ID:	LCSW	Batch ID:	R6315		RunNo:	6315				
Prep Date:		Analysis Date:	10/17/2012		SeqNo:	181906	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	101	85	115			
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
Lead	0.025	0.0010	0.02500	0	99.6	85	115			
Selenium	0.027	0.0010	0.02500	0	106	85	115			

Sample ID	LCS	SampType:	LCS		TestCode:	EPA 200.8: Metals				
Client ID:	LCSW	Batch ID:	R6315		RunNo:	6315				
Prep Date:		Analysis Date:	10/17/2012		SeqNo:	181907	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.024	0.0010	0.02500	0	96.7	85	115			
Arsenic	0.025	0.0010	0.02500	0	101	85	115			
Lead	0.025	0.0010	0.02500	0	100	85	115			
Selenium	0.026	0.0010	0.02500	0	106	85	115			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210585**

30-Oct-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181909** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181910** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181911** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **1210585-001CMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **EB100912**	Batch ID: **R6315**	RunNo: **6315**
Prep Date:	Analysis Date: **10/17/2012**	SeqNo: **181948** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.026	0.0010	0.02500	0	103	70	130			
Arsenic	0.026	0.0010	0.02500	0	102	70	130			
Lead	0.025	0.0010	0.02500	0	99.7	70	130			
Selenium	0.026	0.0010	0.02500	0	105	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210585**

30-Oct-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-4303	SampType:	mblk	TestCode:	EPA Method 245.1: Mercury					
Client ID:	PBW	Batch ID:	4303	RunNo:	6268					
Prep Date:	10/15/2012	Analysis Date:	10/15/2012	SeqNo:	180618	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-4303	SampType:	lcs	TestCode:	EPA Method 245.1: Mercury					
Client ID:	LCSW	Batch ID:	4303	RunNo:	6268					
Prep Date:	10/15/2012	Analysis Date:	10/15/2012	SeqNo:	180619	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	95.8	80	120			

Sample ID	1210352-007BMS	SampType:	ms	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	4303	RunNo:	6268					
Prep Date:	10/15/2012	Analysis Date:	10/15/2012	SeqNo:	180639	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.00020	0.005000	0	93.6	75	125			

Sample ID	1210352-007BMSD	SampType:	msd	TestCode:	EPA Method 245.1: Mercury					
Client ID:	BatchQC	Batch ID:	4303	RunNo:	6268					
Prep Date:	10/15/2012	Analysis Date:	10/15/2012	SeqNo:	180642	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.00020	0.005000	0	94.2	75	125	0.680	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210585**

30-Oct-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6188**	RunNo: **6188**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178268** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6188**	RunNo: **6188**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178269** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	96.8	90	110			
Chloride	4.8	0.50	5.000	0	95.3	90	110			
Sulfate	9.5	0.50	10.00	0	95.4	90	110			

Sample ID **1210585-001FMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **EB100912**	Batch ID: **R6188**	RunNo: **6188**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178271** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	94.8	76.6	110			
Chloride	4.8	0.50	5.000	0.1379	92.7	87.8	111			
Sulfate	9.6	0.50	10.00	0	95.9	84.6	122			

Sample ID **1210585-001FMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **EB100912**	Batch ID: **R6188**	RunNo: **6188**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178272** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.8	76.6	110	3.16	20	
Chloride	4.8	0.50	5.000	0.1379	93.6	87.8	111	0.930	20	
Sulfate	9.6	0.50	10.00	0	96.4	84.6	122	0.537	20	

Sample ID **1210593-001AMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6188**	RunNo: **6188**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178283** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.4	0.10	0.5000	2.006	86.2	76.6	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210585**

30-Oct-12

ıt: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	**1210593-001AMSD**	SampType: **MSD**		TestCode: **EPA Method 300.0: Anions**	
Client ID:	**BatchQC**	Batch ID: **R6188**		RunNo: **6188**	
Prep Date:		Analysis Date: **10/11/2012**		SeqNo: **178284**	Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	2.4	0.10	0.5000	2.006	86.2	76.6	110	0.00821	20	

'ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210585**

30-Oct-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB-4249**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **4249**	RunNo: **6146**
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **177920** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		112	79.5	166			

Sample ID **LCS-4249**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **4249**	RunNo: **6146**
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **177921** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.1	1.0	5.000	0	81.7	74	157			
Surr: DNOP	0.53		0.5000		105	79.5	166			

Sample ID **LCSD-4249**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **4249**	RunNo: **6146**
Prep Date: **10/11/2012**	Analysis Date: **10/11/2012**	SeqNo: **177922** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	3.7	1.0	5.000	0	74.3	74	157	9.49	23	
Surr: DNOP	0.50		0.5000		101	79.5	166	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210585**

30-Oct-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R6183**	RunNo: **6183**	
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178201**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
n disulfide	ND	10								
on Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210585**

30-Oct-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6183**	RunNo: **6183**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178201** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.3	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.5	70	130			
Surr: Dibromofluoromethane	8.9		10.00		88.9	70	130			
Surr: Toluene-d8	9.3		10.00		93.2	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6183**	RunNo: **6183**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178203** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.4	70	130			
Toluene	19	1.0	20.00	0	94.8	80	120			
Chlorobenzene	19	1.0	20.00	0	95.1	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	90.2	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	84.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210585**

30-Oct-12

t: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6183**	RunNo: **6183**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178203** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	9.0		10.00		90.4	70	130			
Surr: Toluene-d8	9.4		10.00		93.9	70	130			

Sample ID **1210585-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **EB100912**	Batch ID: **R6183**	RunNo: **6183**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178207** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	23	1.0	20.00	0	116	66.8	128			
Toluene	21	1.0	20.00	0	104	70	130			
Chlorobenzene	21	1.0	20.00	0	106	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	106	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	97.7	70	130			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.1	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.0	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.1	70	130			
Surr: Toluene-d8	9.2		10.00		92.2	70	130			

ple ID **1210585-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **EB100912**	Batch ID: **R6183**	RunNo: **6183**
Prep Date:	Analysis Date: **10/11/2012**	SeqNo: **178208** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	66.8	128	8.48	16.7	
Toluene	21	1.0	20.00	0	107	70	130	2.10	18.7	
Chlorobenzene	22	1.0	20.00	0	108	70	130	2.28	19.5	
1,1-Dichloroethene	19	1.0	20.00	0	92.8	70	130	13.6	16.7	
Trichloroethene (TCE)	19	1.0	20.00	0	93.0	70	130	5.02	17.5	
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.7		10.00		96.6	70	130	0	0	
Surr: Dibromofluoromethane	9.1		10.00		90.9	70	130	0	0	
Surr: Toluene-d8	9.6		10.00		95.8	70	130	0	0	

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210585**

30-Oct-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-4270**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4270**	RunNo: **6220**
Prep Date: **10/12/2012**	Analysis Date: **10/14/2012**	SeqNo: **179276** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
Butyl benzyl phthalate	ND	10								
Carbazole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	10								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210585**

30-Oct-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	mb-4270	SampType:	MBLK	TestCode:	EPA Method 8270C: Semivolatiles
Client ID:	PBW	Batch ID:	4270	RunNo:	6220
Prep Date:	10/12/2012	Analysis Date:	10/14/2012	SeqNo:	179276 Units: µg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
[illegible]aniline	ND	10								
4-[illegible]oaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	97		200.0		48.5	44.2	126			
Surr: 2-Fluorobiphenyl	48		100.0		47.8	37	114			
Surr: 2-Fluorophenol	68		200.0		34.0	23.4	98			
Surr: 4-Terphenyl-d14	60		100.0		60.1	41.3	116			
Surr: Nitrobenzene-d5	55		100.0		54.6	39.5	118			
Surr: Phenol-d5	67		200.0		33.3	20.9	95.9			

Qualifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210585**

30-Oct-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **lcs-4270**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **4270**	RunNo: **6220**
Prep Date: **10/12/2012**	Analysis Date: **10/14/2012**	SeqNo: **179277** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	68	10	100.0	0	68.4	38.2	99.4			
4-Chloro-3-methylphenol	150	10	200.0	0	77.1	35.5	108			
2-Chlorophenol	130	10	200.0	0	63.2	29.8	106			
1,4-Dichlorobenzene	61	10	100.0	0	60.6	32.6	91.5			
2,4-Dinitrotoluene	92	10	100.0	0	92.1	44.7	112			
N-Nitrosodi-n-propylamine	80	10	100.0	0	80.1	38.5	105			
4-Nitrophenol	76	10	200.0	0	38.1	11.6	73.1			
Pentachlorophenol	88	20	200.0	0	43.8	20.2	93			
Phenol	78	10	200.0	0	39.1	23	66.1			
Pyrene	69	10	100.0	0	68.6	40.1	101			
1,2,4-Trichlorobenzene	67	10	100.0	0	67.4	37.7	99.1			
Surr: 2,4,6-Tribromophenol	140		200.0		70.2	44.2	126			
Surr: 2-Fluorobiphenyl	68		100.0		68.1	37	114			
Surr: 2-Fluorophenol	110		200.0		54.6	23.4	98			
Surr: 4-Terphenyl-d14	64		100.0		64.0	41.3	116			
Surr: Nitrobenzene-d5	72		100.0		72.0	39.5	118			
Surr: Phenol-d5	92		200.0		46.0	20.9	95.9			

Sample ID **lcsd-4270**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **4270**	RunNo: **6220**
Prep Date: **10/12/2012**	Analysis Date: **10/14/2012**	SeqNo: **179278** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	67	10	100.0	0	66.9	38.2	99.4	2.22	20	
4-Chloro-3-methylphenol	150	10	200.0	0	77.0	35.5	108	0.0649	20	
2-Chlorophenol	120	10	200.0	0	62.0	29.8	106	1.92	20	
1,4-Dichlorobenzene	59	10	100.0	0	59.3	32.6	91.5	2.23	20	
2,4-Dinitrotoluene	88	10	100.0	0	88.4	44.7	112	4.01	20	
N-Nitrosodi-n-propylamine	77	10	100.0	0	77.0	38.5	105	3.95	20	
4-Nitrophenol	85	10	200.0	0	42.7	11.6	73.1	11.3	20	
Pentachlorophenol	100	20	200.0	0	50.9	20.2	93	14.8	20	
Phenol	81	10	200.0	0	40.5	23	66.1	3.54	20	
Pyrene	69	10	100.0	0	69.4	40.1	101	1.13	20	
1,2,4-Trichlorobenzene	61	10	100.0	0	60.7	37.7	99.1	10.4	20	
Surr: 2,4,6-Tribromophenol	160		200.0		81.7	44.2	126	0	0	
Surr: 2-Fluorobiphenyl	70		100.0		69.5	37	114	0	0	
Surr: 2-Fluorophenol	110		200.0		56.4	23.4	98	0	0	
Surr: 4-Terphenyl-d14	66		100.0		65.6	41.3	116	0	0	
Surr: Nitrobenzene-d5	71		100.0		71.5	39.5	118	0	0	
Surr: Phenol-d5	90		200.0		45.1	20.9	95.9	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210585**

30-Oct-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	5ml rb	SampType:	MBLK		TestCode:	Modified EPA Method 8015B: Gasoline Range				
Client ID:	PBW	Batch ID:	R6183		RunNo:	6183				
Prep Date:		Analysis Date:	10/11/2012		SeqNo:	178164	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.8		10.00		98.5	70	130			

Sample ID	2.5ug gro lcs	SampType:	LCS		TestCode:	Modified EPA Method 8015B: Gasoline Range				
Client ID:	LCSW	Batch ID:	R6183		RunNo:	6183				
Prep Date:		Analysis Date:	10/11/2012		SeqNo:	178166	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.45	0.050	0.5000	0	90.8	85	115			
Surr: BFB	9.5		10.00		95.0	70	130			

Sample ID	1210585-002ams	SampType:	MS		TestCode:	Modified EPA Method 8015B: Gasoline Range				
Client ID:	FB100912	Batch ID:	R6183		RunNo:	6183				
Prep Date:		Analysis Date:	10/11/2012		SeqNo:	178167	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	91.1	70	130			
Surr: BFB	9.5		10.00		95.2	70	130			

Sample ID	1210517-001AMSD	SampType:	MSD		TestCode:	Modified EPA Method 8015B: Gasoline Range				
Client ID:	BatchQC	Batch ID:	R6183		RunNo:	6183				
Prep Date:		Analysis Date:	10/11/2012		SeqNo:	178170	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	1.2	0.050	0.5000	0.8288	81.9	70	130	5.02	20	
Surr: BFB	9.1		10.00		90.7	70	130	0	0	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1210585

Received by/date: MG 10/11/12

Logged By: Michelle Garcia 10/11/2012 8:00:00 AM — Michelle Garcia

Completed By: Michelle Garcia 10/11/2012 9:00:09 AM — Michelle Garcia

Reviewed By: 10/11/12

Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? FedEx

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: 2 2 (<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: Date:
By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:
Client Instructions:

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)
Accreditation
☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time:
☒ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: ☐ Yes ☐ No
Sample Temperature: 1.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210548	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/9/12	1800	WATER	EB100912	6 VOA	HCL & NEAT	-001										X						
				1 AMBER	NEAT												X					
				1 PLASTIC	NEAT														X			
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NAOH														X			
	1815		FB100912	6 VOA	HCL & NEAT	-002										X						
				1 AMBER	NEAT												X					
				1 PLASTIC	NEAT														X			
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NAOH														X			

Date: 10/10/12 Time: 0735 Relinquished by: Received by: Date Time
Date: Time: Relinquished by: Received by: 10/11/12 0800 Date Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Rpt	T	Analyte	Units	Synonym	MDL	LOD	LOQ
☐	A	Aluminum	mg/Kg		0.4481	0	
☑	A	Antimony	mg/Kg		0.629	0	
☑	A	Arsenic	mg/Kg		0.6263	0	
☑	A	Barium	mg/Kg		0.0609	0	
☑	A	Beryllium	mg/Kg		0.0093	0	
☐	A	Boron	mg/Kg		0.0826	0	
☑	A	Cadmium	mg/Kg		0.0271	0	
☐	A	Calcium	mg/Kg		6.9713	0	
☑	A	Chromium	mg/Kg		0.1184	0	
☑	A	Cobalt	mg/Kg		0.0689	0	
☐	A	Copper	mg/Kg		0.2323	0	
☑	A	Iron	mg/Kg		0.7476	0	
☑	A	Lead	mg/Kg		0.2194	0	
☐	A	Magnesium	mg/Kg		0.4651	0	
☑	A	Manganese	mg/Kg		0.0212	0	
☐	A	Molybdenum	mg/Kg		0.1423	0	
☑	A	Nickel	mg/Kg		0.1668	0	
☐	A	Potassium	mg/Kg		17.3925	0	
☑	A	Selenium	mg/Kg		1.4025	0	
☑	A	Silver	mg/Kg		0.0354	0	
☐	A	Sodium	mg/Kg		8.4278	0	
☐	A	Thallium	mg/Kg		1.1557	0	
☐	A	Tin	mg/Kg		0.8261	0	
☐	A	Titanium	mg/Kg		0.0342	0	
☐	A	Uranium	mg/Kg		0.7296	0	
☑	A	Vanadium	mg/Kg		0.0565	0	
☑	A	Zinc	mg/Kg		1.0066	0	
☐	I	Yttrium	%		0	0	
☐	I	Yttrium Radial	%		0	0	
☐	X	Uranium-confirmation	mg/Kg		0	0	
☐	X	Silicon	mg/Kg		0	0	

+ Hg
+ Cn

Ag

Cl
F
SO4

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 12, 2012

Scott Crouch

Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.14 OrderNo.: 1210656

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 4 sample(s) on 10/12/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1210656**
Date Reported: **11/12/2012**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210656-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-23 (0-0.5')
Collection Date: 10/10/2012 1:45:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	45	10		mg/Kg	1	10/15/2012 12:03:50 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/15/2012 12:03:50 PM
Surr: DNOP	84.6	77.6-140		%REC	1	10/15/2012 12:03:50 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/19/2012 7:35:41 PM
Surr: BFB	88.6	84-116		%REC	1	10/19/2012 7:35:41 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	0.10	0.033		mg/kg	1	10/16/2012 5:59:00 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 3:06:37 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 3:06:37 PM
Barium	600	5.0		mg/Kg	50	10/25/2012 3:37:00 PM
Beryllium	0.61	0.30		mg/Kg	2	10/25/2012 3:06:37 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 3:06:37 PM
Chromium	9.6	0.60		mg/Kg	2	10/25/2012 3:06:37 PM
Cobalt	3.4	0.60		mg/Kg	2	10/25/2012 3:06:37 PM
Iron	13000	500		mg/Kg	500	10/25/2012 3:39:26 PM
Lead	4.2	0.50		mg/Kg	2	10/25/2012 3:06:37 PM
Manganese	720	5.0		mg/Kg	50	10/25/2012 3:37:00 PM
Nickel	5.9	1.0		mg/Kg	2	10/25/2012 3:06:37 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 3:06:37 PM
Silver	ND	0.50		mg/Kg	2	10/31/2012 2:41:44 PM
Vanadium	18	5.0		mg/Kg	2	10/25/2012 3:06:37 PM
Zinc	140	12		mg/Kg	5	10/25/2012 3:21:25 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Acenaphthylene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Aniline	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Anthracene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Azobenzene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Benz(a)anthracene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Benzo(a)pyrene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Benzo(b)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Benzo(g,h,i)perylene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Benzo(k)fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Benzoic acid	ND	1.0		mg/Kg	1	10/21/2012 9:34:14 AM
Benzyl alcohol	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Bis(2-chloroethoxy)methane	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Bis(2-chloroethyl)ether	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Bis(2-chloroisopropyl)ether	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210656-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-23 (0-0.5')
Collection Date: 10/10/2012 1:45:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	1	10/21/2012 9:34:14 AM
4-Bromophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Butyl benzyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Carbazole	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 9:34:14 AM
4-Chloroaniline	ND	1.0		mg/Kg	1	10/21/2012 9:34:14 AM
2-Chloronaphthalene	ND	0.50		mg/Kg	1	10/21/2012 9:34:14 AM
2-Chlorophenol	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
4-Chlorophenyl phenyl ether	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Chrysene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Di-n-butyl phthalate	ND	1.0		mg/Kg	1	10/21/2012 9:34:14 AM
Di-n-octyl phthalate	ND	0.80		mg/Kg	1	10/21/2012 9:34:14 AM
Dibenz(a,h)anthracene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Dibenzofuran	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
1,2-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
1,3-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
1,4-Dichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
3,3'-Dichlorobenzidine	ND	0.50		mg/Kg	1	10/21/2012 9:34:14 AM
Diethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Dimethyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
2,4-Dichlorophenol	ND	0.80		mg/Kg	1	10/21/2012 9:34:14 AM
2,4-Dimethylphenol	ND	0.60		mg/Kg	1	10/21/2012 9:34:14 AM
4,6-Dinitro-2-methylphenol	ND	1.0		mg/Kg	1	10/21/2012 9:34:14 AM
2,4-Dinitrophenol	ND	0.80		mg/Kg	1	10/21/2012 9:34:14 AM
2,4-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 9:34:14 AM
2,6-Dinitrotoluene	ND	1.0		mg/Kg	1	10/21/2012 9:34:14 AM
Fluoranthene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Fluorene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Hexachlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Hexachlorobutadiene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Hexachlorocyclopentadiene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Hexachloroethane	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Indeno(1,2,3-cd)pyrene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Isophorone	ND	1.0		mg/Kg	1	10/21/2012 9:34:14 AM
1-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
2-Methylnaphthalene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
2-Methylphenol	ND	1.0		mg/Kg	1	10/21/2012 9:34:14 AM
3+4-Methylphenol	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
N-Nitrosodi-n-propylamine	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
N-Nitrosodiphenylamine	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Naphthalene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
2-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210656-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-23 (0-0.5')
Collection Date: 10/10/2012 1:45:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
3-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
4-Nitroaniline	ND	0.80		mg/Kg	1	10/21/2012 9:34:14 AM
Nitrobenzene	ND	1.0		mg/Kg	1	10/21/2012 9:34:14 AM
2-Nitrophenol	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
4-Nitrophenol	ND	0.50		mg/Kg	1	10/21/2012 9:34:14 AM
Pentachlorophenol	ND	0.80		mg/Kg	1	10/21/2012 9:34:14 AM
Phenanthrene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Phenol	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Pyrene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Pyridine	ND	1.0		mg/Kg	1	10/21/2012 9:34:14 AM
1,2,4-Trichlorobenzene	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
2,4,5-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
2,4,6-Trichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 9:34:14 AM
Surr: 2,4,6-Tribromophenol	49.3	21.3-145		%REC	1	10/21/2012 9:34:14 AM
Surr: 2-Fluorobiphenyl	51.8	20-131		%REC	1	10/21/2012 9:34:14 AM
Surr: 2-Fluorophenol	50.6	11.9-130		%REC	1	10/21/2012 9:34:14 AM
Surr: 4-Terphenyl-d14	56.6	25.1-149		%REC	1	10/21/2012 9:34:14 AM
Surr: Nitrobenzene-d5	53.3	25.6-137		%REC	1	10/21/2012 9:34:14 AM
Surr: Phenol-d5	49.3	20.3-132		%REC	1	10/21/2012 9:34:14 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: RAA
Benzene	0.00261	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Toluene	0.00750	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Ethylbenzene	0.00207	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Xylenes, Total	0.0103	0.00216		mg/Kg	1	10/12/2012 4:21:07 PM
Methyl tert-butyl ether (MTBE)	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,2,4-Trimethylbenzene	0.00512	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,3,5-Trimethylbenzene	0.00205	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,2-Dichloroethane (EDC)	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,2-Dibromoethane (EDB)	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Naphthalene	ND	0.00216		mg/Kg	1	10/12/2012 4:21:07 PM
1-Methylnaphthalene	ND	0.00431		mg/Kg	1	10/12/2012 4:21:07 PM
2-Methylnaphthalene	ND	0.00431		mg/Kg	1	10/12/2012 4:21:07 PM
Acetone	0.101	0.0108		mg/Kg	1	10/12/2012 4:21:07 PM
Bromobenzene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Bromodichloromethane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Bromoform	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Bromomethane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
2-Butanone	0.0188	0.0108		mg/Kg	1	10/12/2012 4:21:07 PM
Carbon tetrachloride	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Chlorobenzene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Chloroethane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210656-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-23 (0-0.5')
Collection Date: 10/10/2012 1:45:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Chloromethane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
2-Chlorotoluene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Carbon disulfide	ND	0.0108		mg/Kg	1	10/12/2012 4:21:07 PM
4-Chlorotoluene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
cis-1,2-DCE	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
cis-1,3-Dichloropropene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,2-Dibromo-3-chloropropane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Dibromochloromethane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Dibromomethane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,2-Dichlorobenzene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,3-Dichlorobenzene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,4-Dichlorobenzene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Dichlorodifluoromethane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,1-Dichloroethane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,1-Dichloroethene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,2-Dichloropropane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,3-Dichloropropane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
2,2-Dichloropropane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,1-Dichloropropene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Hexachlorobutadiene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Isopropylbenzene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
4-Isopropyltoluene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Methylene chloride	ND	0.00323		mg/Kg	1	10/12/2012 4:21:07 PM
n-Butylbenzene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
2-Hexanone	ND	0.0108		mg/Kg	1	10/12/2012 4:21:07 PM
n-Propylbenzene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
sec-Butylbenzene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Styrene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
4-Methyl-2-pentanone	0.0142	0.0108		mg/Kg	1	10/12/2012 4:21:07 PM
tert-Butylbenzene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,1,1,2-Tetrachloroethane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,1,2,2-Tetrachloroethane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Tetrachloroethene (PCE)	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
trans-1,2-DCE	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
trans-1,3-Dichloropropene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,2,3-Trichlorobenzene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,2,4-Trichlorobenzene	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,1,1-Trichloroethane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
1,1,2-Trichloroethane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Trichloroethene (TCE)	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Trichlorofluoromethane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210656-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-23 (0-0.5')
Collection Date: 10/10/2012 1:45:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Vinyl chloride	ND	0.00108		mg/Kg	1	10/12/2012 4:21:07 PM
Surr: 1,2-Dichloroethane-d4	91.6	70-130		%REC	1	10/12/2012 4:21:07 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	10/12/2012 4:21:07 PM
Surr: Dibromofluoromethane	97.2	70-130		%REC	1	10/12/2012 4:21:07 PM
Surr: Toluene-d8	97.7	70-130		%REC	1	10/12/2012 4:21:07 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210656-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-23 (1.5-2')
Collection Date: 10/10/2012 1:55:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	32	9.9		mg/Kg	1	10/15/2012 3:29:18 PM
Motor Oil Range Organics (MRO)	75	49		mg/Kg	1	10/15/2012 3:29:18 PM
Surr: DNOP	95.2	77.6-140		%REC	1	10/15/2012 3:29:18 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/19/2012 8:04:27 PM
Surr: BFB	87.9	84-116		%REC	1	10/19/2012 8:04:27 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 6:00:47 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 8:22:15 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 8:22:15 PM
Barium	460	2.0		mg/Kg	20	10/25/2012 8:25:06 PM
Beryllium	0.62	0.30		mg/Kg	2	10/25/2012 8:22:15 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 8:22:15 PM
Chromium	15	0.60		mg/Kg	2	10/25/2012 8:22:15 PM
Cobalt	3.7	0.60		mg/Kg	2	10/25/2012 8:22:15 PM
Iron	12000	500		mg/Kg	500	10/25/2012 8:27:45 PM
Lead	7.6	0.50		mg/Kg	2	10/25/2012 8:22:15 PM
Manganese	570	2.0		mg/Kg	20	10/25/2012 8:25:06 PM
Nickel	6.5	1.0		mg/Kg	2	10/25/2012 8:22:15 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 8:22:15 PM
Silver	ND	0.50		mg/Kg	2	10/31/2012 2:53:24 PM
Vanadium	16	5.0		mg/Kg	2	10/25/2012 8:22:15 PM
Zinc	41	5.0		mg/Kg	2	10/25/2012 8:22:15 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Acenaphthylene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Aniline	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Anthracene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Azobenzene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Benz(a)anthracene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Benzo(a)pyrene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Benzo(b)fluoranthene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Benzo(g,h,i)perylene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Benzo(k)fluoranthene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Benzoic acid	ND	2.5		mg/Kg	1	10/21/2012 10:03:19 AM
Benzyl alcohol	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Bis(2-chloroethoxy)methane	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Bis(2-chloroethyl)ether	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Bis(2-chloroisopropyl)ether	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210656-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-23 (1.5-2')
Collection Date: 10/10/2012 1:55:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	2.5		mg/Kg	1	10/21/2012 10:03:19 AM
4-Bromophenyl phenyl ether	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Butyl benzyl phthalate	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Carbazole	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
4-Chloro-3-methylphenol	ND	2.5		mg/Kg	1	10/21/2012 10:03:19 AM
4-Chloroaniline	ND	2.5		mg/Kg	1	10/21/2012 10:03:19 AM
2-Chloronaphthalene	ND	1.2		mg/Kg	1	10/21/2012 10:03:19 AM
2-Chlorophenol	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
4-Chlorophenyl phenyl ether	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Chrysene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Di-n-butyl phthalate	ND	2.5		mg/Kg	1	10/21/2012 10:03:19 AM
Di-n-octyl phthalate	ND	2.0		mg/Kg	1	10/21/2012 10:03:19 AM
Dibenz(a,h)anthracene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Dibenzofuran	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
1,2-Dichlorobenzene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
1,3-Dichlorobenzene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
1,4-Dichlorobenzene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
3,3'-Dichlorobenzidine	ND	1.2		mg/Kg	1	10/21/2012 10:03:19 AM
Diethyl phthalate	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Dimethyl phthalate	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
2,4-Dichlorophenol	ND	2.0		mg/Kg	1	10/21/2012 10:03:19 AM
2,4-Dimethylphenol	ND	1.5		mg/Kg	1	10/21/2012 10:03:19 AM
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	1	10/21/2012 10:03:19 AM
2,4-Dinitrophenol	ND	2.0		mg/Kg	1	10/21/2012 10:03:19 AM
2,4-Dinitrotoluene	ND	2.5		mg/Kg	1	10/21/2012 10:03:19 AM
2,6-Dinitrotoluene	ND	2.5		mg/Kg	1	10/21/2012 10:03:19 AM
Fluoranthene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Fluorene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Hexachlorobenzene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Hexachlorobutadiene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Hexachlorocyclopentadiene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Hexachloroethane	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Indeno(1,2,3-cd)pyrene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Isophorone	ND	2.5		mg/Kg	1	10/21/2012 10:03:19 AM
1-Methylnaphthalene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
2-Methylnaphthalene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
2-Methylphenol	ND	2.5		mg/Kg	1	10/21/2012 10:03:19 AM
3+4-Methylphenol	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
N-Nitrosodi-n-propylamine	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
N-Nitrosodiphenylamine	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Naphthalene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
2-Nitroaniline	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210656-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-23 (1.5-2')
Collection Date: 10/10/2012 1:55:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
3-Nitroaniline	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
4-Nitroaniline	ND	2.0		mg/Kg	1	10/21/2012 10:03:19 AM
Nitrobenzene	ND	2.5		mg/Kg	1	10/21/2012 10:03:19 AM
2-Nitrophenol	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
4-Nitrophenol	ND	1.2		mg/Kg	1	10/21/2012 10:03:19 AM
Pentachlorophenol	ND	2.0		mg/Kg	1	10/21/2012 10:03:19 AM
Phenanthrene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Phenol	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Pyrene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Pyridine	ND	2.5		mg/Kg	1	10/21/2012 10:03:19 AM
1,2,4-Trichlorobenzene	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
2,4,5-Trichlorophenol	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
2,4,6-Trichlorophenol	ND	0.99		mg/Kg	1	10/21/2012 10:03:19 AM
Surr: 2,4,6-Tribromophenol	100	21.3-145		%REC	1	10/21/2012 10:03:19 AM
Surr: 2-Fluorobiphenyl	105	20-131		%REC	1	10/21/2012 10:03:19 AM
Surr: 2-Fluorophenol	91.6	11.9-130		%REC	1	10/21/2012 10:03:19 AM
Surr: 4-Terphenyl-d14	117	25.1-149		%REC	1	10/21/2012 10:03:19 AM
Surr: Nitrobenzene-d5	112	25.6-137		%REC	1	10/21/2012 10:03:19 AM
Surr: Phenol-d5	102	20.3-132		%REC	1	10/21/2012 10:03:19 AM
METHOD 8260B/5035LOW: VOLATILES						Analyst: RAA
Benzene	0.00151	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Toluene	0.00235	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Ethylbenzene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Xylenes, Total	ND	0.00147		mg/Kg	1	10/12/2012 4:51:51 PM
Methyl tert-butyl ether (MTBE)	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,2,4-Trimethylbenzene	0.000894	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,3,5-Trimethylbenzene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,2-Dichloroethane (EDC)	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,2-Dibromoethane (EDB)	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Naphthalene	ND	0.00147		mg/Kg	1	10/12/2012 4:51:51 PM
1-Methylnaphthalene	ND	0.00293		mg/Kg	1	10/12/2012 4:51:51 PM
2-Methylnaphthalene	ND	0.00293		mg/Kg	1	10/12/2012 4:51:51 PM
Acetone	0.0383	0.00733		mg/Kg	1	10/12/2012 4:51:51 PM
Bromobenzene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Bromodichloromethane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Bromoform	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Bromomethane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
2-Butanone	ND	0.00733		mg/Kg	1	10/12/2012 4:51:51 PM
Carbon tetrachloride	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Chlorobenzene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Chloroethane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210656-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-23 (1.5-2')
Collection Date: 10/10/2012 1:55:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Chloromethane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
2-Chlorotoluene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Carbon disulfide	ND	0.00733		mg/Kg	1	10/12/2012 4:51:51 PM
4-Chlorotoluene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
cis-1,2-DCE	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
cis-1,3-Dichloropropene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,2-Dibromo-3-chloropropane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Dibromochloromethane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Dibromomethane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,2-Dichlorobenzene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,3-Dichlorobenzene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,4-Dichlorobenzene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Dichlorodifluoromethane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,1-Dichloroethane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,1-Dichloroethene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,2-Dichloropropane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,3-Dichloropropane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
2,2-Dichloropropane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,1-Dichloropropene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Hexachlorobutadiene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Isopropylbenzene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
4-Isopropyltoluene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Methylene chloride	ND	0.00220		mg/Kg	1	10/12/2012 4:51:51 PM
n-Butylbenzene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
2-Hexanone	ND	0.00733		mg/Kg	1	10/12/2012 4:51:51 PM
n-Propylbenzene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
sec-Butylbenzene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Styrene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
4-Methyl-2-pentanone	ND	0.00733		mg/Kg	1	10/12/2012 4:51:51 PM
tert-Butylbenzene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,1,1,2-Tetrachloroethane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,1,2,2-Tetrachloroethane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Tetrachloroethene (PCE)	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
trans-1,2-DCE	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
trans-1,3-Dichloropropene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,2,3-Trichlorobenzene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,2,4-Trichlorobenzene	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,1,1-Trichloroethane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
1,1,2-Trichloroethane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Trichloroethene (TCE)	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Trichlorofluoromethane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210656-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-23 (1.5-2')
Collection Date: 10/10/2012 1:55:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Vinyl chloride	ND	0.000733		mg/Kg	1	10/12/2012 4:51:51 PM
Surr: 1,2-Dichloroethane-d4	95.7	70-130		%REC	1	10/12/2012 4:51:51 PM
Surr: 4-Bromofluorobenzene	122	70-130		%REC	1	10/12/2012 4:51:51 PM
Surr: Dibromofluoromethane	103	70-130		%REC	1	10/12/2012 4:51:51 PM
Surr: Toluene-d8	91.8	70-130		%REC	1	10/12/2012 4:51:51 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210656-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-23 (12-14')
Collection Date: 10/10/2012 2:05:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	140	9.8		mg/Kg	1	10/13/2012 5:56:28 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/13/2012 5:56:28 PM
Surr: DNOP	96.6	77.6-140		%REC	1	10/13/2012 5:56:28 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	160	100		mg/Kg	20	10/20/2012 1:19:56 PM
Surr: BFB	130	84-116	S	%REC	20	10/20/2012 1:19:56 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 6:02:34 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 8:45:39 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 8:45:39 PM
Barium	220	2.0		mg/Kg	20	10/25/2012 8:48:33 PM
Beryllium	0.87	0.30		mg/Kg	2	10/25/2012 8:45:39 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 8:45:39 PM
Chromium	8.3	0.60		mg/Kg	2	10/25/2012 8:45:39 PM
Cobalt	4.0	0.60		mg/Kg	2	10/25/2012 8:45:39 PM
Iron	13000	500		mg/Kg	500	10/25/2012 8:51:11 PM
Lead	3.7	0.50		mg/Kg	2	10/25/2012 8:45:39 PM
Manganese	300	2.0		mg/Kg	20	10/25/2012 8:48:33 PM
Nickel	7.2	1.0		mg/Kg	2	10/25/2012 8:45:39 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 8:45:39 PM
Silver	ND	0.50		mg/Kg	2	10/31/2012 3:08:43 PM
Vanadium	14	5.0		mg/Kg	2	10/25/2012 8:45:39 PM
Zinc	13	5.0		mg/Kg	2	10/25/2012 8:45:39 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Aniline	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Anthracene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Azobenzene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/20/2012 11:33:10 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210656-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-23 (12-14')
Collection Date: 10/10/2012 2:05:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/20/2012 11:33:10 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Carbazole	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/20/2012 11:33:10 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/20/2012 11:33:10 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/20/2012 11:33:10 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Chrysene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/20/2012 11:33:10 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/20/2012 11:33:10 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/20/2012 11:33:10 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/20/2012 11:33:10 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/20/2012 11:33:10 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/20/2012 11:33:10 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/20/2012 11:33:10 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/20/2012 11:33:10 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/20/2012 11:33:10 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Fluorene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Isophorone	ND	0.50		mg/Kg	1	10/20/2012 11:33:10 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/20/2012 11:33:10 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Naphthalene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210656-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-23 (12-14')
Collection Date: 10/10/2012 2:05:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
3-Nitroaniline	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/20/2012 11:33:10 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/20/2012 11:33:10 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/20/2012 11:33:10 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/20/2012 11:33:10 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Phenol	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Pyrene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Pyridine	ND	0.50		mg/Kg	1	10/20/2012 11:33:10 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/20/2012 11:33:10 PM
Surr: 2,4,6-Tribromophenol	104	21.3-145		%REC	1	10/20/2012 11:33:10 PM
Surr: 2-Fluorobiphenyl	104	20-131		%REC	1	10/20/2012 11:33:10 PM
Surr: 2-Fluorophenol	95.6	11.9-130		%REC	1	10/20/2012 11:33:10 PM
Surr: 4-Terphenyl-d14	89.8	25.1-149		%REC	1	10/20/2012 11:33:10 PM
Surr: Nitrobenzene-d5	102	25.6-137		%REC	1	10/20/2012 11:33:10 PM
Surr: Phenol-d5	102	20.3-132		%REC	1	10/20/2012 11:33:10 PM
EPA METHOD 8260B: VOLATILES						Analyst: RAA
Benzene	1.1	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
Toluene	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
Ethylbenzene	3.8	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
1,2,4-Trimethylbenzene	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
1,3,5-Trimethylbenzene	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
1,2-Dibromoethane (EDB)	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
Naphthalene	1.3	1.0		mg/Kg	10	10/23/2012 11:06:01 PM
1-Methylnaphthalene	2.3	2.0		mg/Kg	10	10/23/2012 11:06:01 PM
2-Methylnaphthalene	3.5	2.0		mg/Kg	10	10/23/2012 11:06:01 PM
Acetone	ND	7.5		mg/Kg	10	10/23/2012 11:06:01 PM
Bromobenzene	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
Bromodichloromethane	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
Bromoform	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
Bromomethane	ND	1.5		mg/Kg	10	10/23/2012 11:06:01 PM
2-Butanone	ND	5.0		mg/Kg	10	10/23/2012 11:06:01 PM
Carbon disulfide	ND	5.0		mg/Kg	10	10/23/2012 11:06:01 PM
Carbon tetrachloride	ND	1.0		mg/Kg	10	10/23/2012 11:06:01 PM
Chlorobenzene	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
Chloroethane	ND	1.0		mg/Kg	10	10/23/2012 11:06:01 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210656-003 **Matrix:** SOIL

Client Sample ID: SWMU 14-23 (12-14')
Collection Date: 10/10/2012 2:05:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
Chloromethane	ND	1.5		mg/Kg	10	10/23/2012 11:06:01 PM
2-Chlorotoluene	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
4-Chlorotoluene	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
cis-1,2-DCE	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
cis-1,3-Dichloropropene	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
1,2-Dibromo-3-chloropropane	ND	1.0		mg/Kg	10	10/23/2012 11:06:01 PM
Dibromochloromethane	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
Dibromomethane	ND	1.0		mg/Kg	10	10/23/2012 11:06:01 PM
1,2-Dichlorobenzene	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
1,3-Dichlorobenzene	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
1,4-Dichlorobenzene	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
Dichlorodifluoromethane	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
1,1-Dichloroethane	ND	1.0		mg/Kg	10	10/23/2012 11:06:01 PM
1,1-Dichloroethene	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
1,2-Dichloropropane	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
1,3-Dichloropropane	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
2,2-Dichloropropane	ND	1.0		mg/Kg	10	10/23/2012 11:06:01 PM
1,1-Dichloropropene	ND	1.0		mg/Kg	10	10/23/2012 11:06:01 PM
Hexachlorobutadiene	ND	1.0		mg/Kg	10	10/23/2012 11:06:01 PM
2-Hexanone	ND	5.0		mg/Kg	10	10/23/2012 11:06:01 PM
Isopropylbenzene	0.74	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
4-Isopropyltoluene	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
4-Methyl-2-pentanone	ND	5.0		mg/Kg	10	10/23/2012 11:06:01 PM
Methylene chloride	ND	1.5		mg/Kg	10	10/23/2012 11:06:01 PM
n-Butylbenzene	ND	1.5		mg/Kg	10	10/23/2012 11:06:01 PM
n-Propylbenzene	1.3	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
sec-Butylbenzene	0.51	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
Styrene	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
tert-Butylbenzene	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
1,1,1,2-Tetrachloroethane	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
1,1,2,2-Tetrachloroethane	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
Tetrachloroethene (PCE)	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
trans-1,2-DCE	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
trans-1,3-Dichloropropene	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
1,2,3-Trichlorobenzene	ND	1.0		mg/Kg	10	10/23/2012 11:06:01 PM
1,2,4-Trichlorobenzene	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
1,1,1-Trichloroethane	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
1,1,2-Trichloroethane	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
Trichloroethene (TCE)	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
Trichlorofluoromethane	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
1,2,3-Trichloropropane	ND	1.0		mg/Kg	10	10/23/2012 11:06:01 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-23 (12-14')
Project: SWMU NO.14
Collection Date: 10/10/2012 2:05:00 PM
Lab ID: 1210656-003 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	0.50		mg/Kg	10	10/23/2012 11:06:01 PM
Xylenes, Total	ND	1.0		mg/Kg	10	10/23/2012 11:06:01 PM
Surr: 1,2-Dichloroethane-d4	97.4	70-130		%REC	10	10/23/2012 11:06:01 PM
Surr: 4-Bromofluorobenzene	72.8	70-130		%REC	10	10/23/2012 11:06:01 PM
Surr: Dibromofluoromethane	98.6	70-130		%REC	10	10/23/2012 11:06:01 PM
Surr: Toluene-d8	94.5	70-130		%REC	10	10/23/2012 11:06:01 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210656-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-23 (14-16')
Collection Date: 10/10/2012 2:15:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	19	9.9		mg/Kg	1	10/13/2012 6:21:33 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	10/13/2012 6:21:33 PM
Surr: DNOP	96.6	77.6-140		%REC	1	10/13/2012 6:21:33 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/19/2012 11:25:35 PM
Surr: BFB	89.0	84-116		%REC	1	10/19/2012 11:25:35 PM
EPA METHOD 7471: MERCURY						Analyst: **IDC**
Mercury	ND	0.033		mg/kg	1	10/16/2012 6:04:29 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 8:56:59 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 8:56:59 PM
Barium	130	2.0		mg/Kg	20	10/25/2012 8:59:50 PM
Beryllium	0.75	0.30		mg/Kg	2	10/25/2012 8:56:59 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 8:56:59 PM
Chromium	7.8	0.60		mg/Kg	2	10/25/2012 8:56:59 PM
Cobalt	4.0	0.60		mg/Kg	2	10/25/2012 8:56:59 PM
Iron	12000	500		mg/Kg	500	10/25/2012 9:02:34 PM
Lead	3.5	0.50		mg/Kg	2	10/25/2012 8:56:59 PM
Manganese	570	2.0		mg/Kg	20	10/25/2012 8:59:50 PM
Nickel	6.8	1.0		mg/Kg	2	10/25/2012 8:56:59 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 8:56:59 PM
Silver	ND	0.50		mg/Kg	2	10/31/2012 3:11:38 PM
Vanadium	15	5.0		mg/Kg	2	10/25/2012 8:56:59 PM
Zinc	12	5.0		mg/Kg	2	10/25/2012 8:56:59 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Acenaphthylene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Aniline	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Anthracene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Azobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Benzoic acid	ND	0.50		mg/Kg	1	10/21/2012 12:02:25 AM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM

Qualifiers:

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E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210656-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-23 (14-16')
Collection Date: 10/10/2012 2:15:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/21/2012 12:02:25 AM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Carbazole	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 12:02:25 AM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/21/2012 12:02:25 AM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/21/2012 12:02:25 AM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Chrysene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/21/2012 12:02:25 AM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/21/2012 12:02:25 AM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Dibenzofuran	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/21/2012 12:02:25 AM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/21/2012 12:02:25 AM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/21/2012 12:02:25 AM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/21/2012 12:02:25 AM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/21/2012 12:02:25 AM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 12:02:25 AM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/21/2012 12:02:25 AM
Fluoranthene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Fluorene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Hexachloroethane	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Isophorone	ND	0.50		mg/Kg	1	10/21/2012 12:02:25 AM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
2-Methylphenol	ND	0.50		mg/Kg	1	10/21/2012 12:02:25 AM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Naphthalene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210656-004 **Matrix:** SOIL

Client Sample ID: SWMU 14-23 (14-16')
Collection Date: 10/10/2012 2:15:00 PM
Received Date: 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
3-Nitroaniline	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/21/2012 12:02:25 AM
Nitrobenzene	ND	0.50		mg/Kg	1	10/21/2012 12:02:25 AM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/21/2012 12:02:25 AM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/21/2012 12:02:25 AM
Phenanthrene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Phenol	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Pyrene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Pyridine	ND	0.50		mg/Kg	1	10/21/2012 12:02:25 AM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/21/2012 12:02:25 AM
Surr: 2,4,6-Tribromophenol	86.6	21.3-145		%REC	1	10/21/2012 12:02:25 AM
Surr: 2-Fluorobiphenyl	90.8	20-131		%REC	1	10/21/2012 12:02:25 AM
Surr: 2-Fluorophenol	80.7	11.9-130		%REC	1	10/21/2012 12:02:25 AM
Surr: 4-Terphenyl-d14	78.9	25.1-149		%REC	1	10/21/2012 12:02:25 AM
Surr: Nitrobenzene-d5	94.2	25.6-137		%REC	1	10/21/2012 12:02:25 AM
Surr: Phenol-d5	89.9	20.3-132		%REC	1	10/21/2012 12:02:25 AM
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
Toluene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
Ethylbenzene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
Naphthalene	ND	0.10		mg/Kg	1	10/19/2012 9:15:47 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/19/2012 9:15:47 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/19/2012 9:15:47 PM
Acetone	ND	0.75		mg/Kg	1	10/19/2012 9:15:47 PM
Bromobenzene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
Bromoform	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
Bromomethane	ND	0.15		mg/Kg	1	10/19/2012 9:15:47 PM
2-Butanone	ND	0.50		mg/Kg	1	10/19/2012 9:15:47 PM
Carbon disulfide	ND	0.50		mg/Kg	1	10/19/2012 9:15:47 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	10/19/2012 9:15:47 PM
Chlorobenzene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
Chloroethane	ND	0.10		mg/Kg	1	10/19/2012 9:15:47 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-23 (14-16')
Project: SWMU NO.14
Collection Date: 10/10/2012 2:15:00 PM
Lab ID: 1210656-004 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
Chloromethane	ND	0.15		mg/Kg	1	10/19/2012 9:15:47 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	10/19/2012 9:15:47 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
Dibromomethane	ND	0.10		mg/Kg	1	10/19/2012 9:15:47 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	10/19/2012 9:15:47 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	10/19/2012 9:15:47 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	10/19/2012 9:15:47 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	10/19/2012 9:15:47 PM
2-Hexanone	ND	0.50		mg/Kg	1	10/19/2012 9:15:47 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	10/19/2012 9:15:47 PM
Methylene chloride	ND	0.15		mg/Kg	1	10/19/2012 9:15:47 PM
n-Butylbenzene	ND	0.15		mg/Kg	1	10/19/2012 9:15:47 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
Styrene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	10/19/2012 9:15:47 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	10/19/2012 9:15:47 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-23 (14-16')
Project: SWMU NO.14
Collection Date: 10/10/2012 2:15:00 PM
Lab ID: 1210656-004 **Matrix:** SOIL **Received Date:** 10/12/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **RAA**
Vinyl chloride	ND	0.050		mg/Kg	1	10/19/2012 9:15:47 PM
Xylenes, Total	ND	0.10		mg/Kg	1	10/19/2012 9:15:47 PM
Surr: 1,2-Dichloroethane-d4	89.0	70-130		%REC	1	10/19/2012 9:15:47 PM
Surr: 4-Bromofluorobenzene	97.3	70-130		%REC	1	10/19/2012 9:15:47 PM
Surr: Dibromofluoromethane	91.4	70-130		%REC	1	10/19/2012 9:15:47 PM
Surr: Toluene-d8	99.6	70-130		%REC	1	10/19/2012 9:15:47 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Anatek Labs, Inc.

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504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 121017005
Project Name: 1210656

Analytical Results Report

Sample Number 121017005-001 **Sampling Date** 10/10/2012 **Date/Time Received** 10/16/2012 1:11 PM
Client Sample ID 1210656-001D / SWMU 14-23 (0-0.5) **Sampling Time** 1:45 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.364	mg/Kg	0.3	10/23/2012	CRW	EPA 335.4	
%moisture	2.1	Percent		10/26/2012	CRW	%moisture	

Sample Number 121017005-002 **Sampling Date** 10/10/2012 **Date/Time Received** 10/16/2012 1:11 PM
Client Sample ID 1210656-002D / SWMU 14-23 (1.5-2) **Sampling Time** 1:55 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	5.48	mg/Kg	0.3	10/23/2012	CRW	EPA 335.4	
%moisture	5.2	Percent		10/26/2012	CRW	%moisture	

Sample Number 121017005-003 **Sampling Date** 10/10/2012 **Date/Time Received** 10/16/2012 1:11 PM
Client Sample ID 1210656-003D / SWMU 14-23 (12-14) **Sampling Time** 2:05 PM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/23/2012	CRW	EPA 335.4	
%moisture	19.9	Percent		10/26/2012	CRW	%moisture	

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C595
Certifications held by Anatek Labs WA: EPA:WA00169; ID:WA00169; WA:C585; MT:Cert0095

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	121017005
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1210656
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	121017005-004	**Sampling Date**	10/10/2012	**Date/Time Received**	10/16/2012 1:11 PM
Client Sample ID	1210656-004D / SWMU 14-23 (14-16)			**Sampling Time**	2:15 PM
Matrix	Soil				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.3	10/23/2012	CRW	EPA 335.4	
%moisture	15.8	Percent		10/26/2012	CRW	%moisture	

Authorized Signature

John Coddington, Lab Manager

MCL	EPA's Maximum Contaminant Level
ND	Not Detected
PQL	Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210656

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	MB-4283	SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	4283		RunNo:	6213					
Prep Date:	10/12/2012	Analysis Date:	10/13/2012		SeqNo:	179030	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	9.1		10.00		91.2	77.6	140				

Sample ID	LCS-4283	SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	4283		RunNo:	6213					
Prep Date:	10/12/2012	Analysis Date:	10/13/2012		SeqNo:	179032	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	39	10	50.00	0	78.6	52.6	130				
Surr: DNOP	4.1		5.000		81.4	77.6	140				

Sample ID	1210653-001CMS	SampType:	MS		TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	4283		RunNo:	6226					
Prep Date:	10/12/2012	Analysis Date:	10/15/2012		SeqNo:	179425	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	100	10	51.18	103.8	-4.05	57.2	146			S	
Surr: DNOP	3.9		5.118		75.7	77.6	140			S	

Sample ID	1210653-001CMSD	SampType:	MSD		TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	4283		RunNo:	6226					
Prep Date:	10/12/2012	Analysis Date:	10/15/2012		SeqNo:	179426	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	120	10	49.80	103.8	32.2	57.2	146	16.4	24.5	S	
Surr: DNOP	4.2		4.980		84.5	77.6	140	0	0		

Sample ID	MB-4297	SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	4297		RunNo:	6226					
Prep Date:	10/15/2012	Analysis Date:	10/15/2012		SeqNo:	179526	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	9.1		10.00		90.9	77.6	140				

Sample ID	LCS-4297	SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	4297		RunNo:	6226					
Prep Date:	10/15/2012	Analysis Date:	10/15/2012		SeqNo:	179527	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.5		5.000		89.5	77.6	140				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210656

12-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-4282	SampType:	MBLK		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	PBS	Batch ID:	4282		RunNo:	6371				
Prep Date:	10/12/2012	Analysis Date:	10/19/2012		SeqNo:	183155	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.4	84	116			

Sample ID	LCS-4282	SampType:	LCS		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	LCSS	Batch ID:	4282		RunNo:	6371				
Prep Date:	10/12/2012	Analysis Date:	10/19/2012		SeqNo:	183156	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.8	74	117			
Surr: BFB	960		1000		96.4	84	116			

Sample ID	1210668-001AMS	SampType:	MS		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	BatchQC	Batch ID:	4282		RunNo:	6371				
Prep Date:	10/12/2012	Analysis Date:	10/19/2012		SeqNo:	183162	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	24	23.63	6.612	71.0	70	130			
Surr: BFB	4500		4726		96.1	84	116			

Sample ID	1210668-001AMSD	SampType:	MSD		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	BatchQC	Batch ID:	4282		RunNo:	6371				
Prep Date:	10/12/2012	Analysis Date:	10/19/2012		SeqNo:	183163	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	24	23.61	6.612	65.0	70	130	0	22.1	S
Surr: BFB	4300		4721		90.4	84	116	0	0	

Sample ID	MB-4318	SampType:	MBLK		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	PBS	Batch ID:	4318		RunNo:	6373				
Prep Date:	10/15/2012	Analysis Date:	10/20/2012		SeqNo:	183238	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		89.4	84	116			

Sample ID	LCS-4318	SampType:	LCS		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	LCSS	Batch ID:	4318		RunNo:	6373				
Prep Date:	10/15/2012	Analysis Date:	10/20/2012		SeqNo:	183239	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.9	74	117			
Surr: BFB	940		1000		93.6	84	116			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1210683-006AMS**	SampType: **MS**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **4318**	RunNo: **6373**
Prep Date: **10/15/2012**	Analysis Date: **10/21/2012**	SeqNo: **183246** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	24.98	0	88.0	70	130			
Surr: BFB	930		999.0		92.6	84	116			

Sample ID **1210683-006AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **4318**	RunNo: **6373**
Prep Date: **10/15/2012**	Analysis Date: **10/21/2012**	SeqNo: **183247** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	4.9	24.27	0	74.7	70	130	19.2	22.1	
Surr: BFB	910		970.9		93.3	84	116	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210656

12-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	mb-4282	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	PBS	Batch ID:	4282	RunNo:	6255				
Prep Date:	10/12/2012	Analysis Date:	10/16/2012	SeqNo:	180339	Units:	%REC		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		95.6	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		91.8	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.8	70	130			
Surr: Toluene-d8	0.50		0.5000		100	70	130			

Sample ID	lcs-4282	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	LCSS	Batch ID:	4282	RunNo:	6255				
Prep Date:	10/12/2012	Analysis Date:	10/16/2012	SeqNo:	180340	Units:	%REC		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.2	70	130			
Surr: 4-Bromofluorobenzene	0.45		0.5000		89.6	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.6	70	130			
Surr: Toluene-d8	0.50		0.5000		99.8	70	130			

Sample ID	b2	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES				
Client ID:	PBS	Batch ID:	R6394	RunNo:	6394				
Prep Date:		Analysis Date:	10/19/2012	SeqNo:	184052	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **b2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBS**	Batch ID: **R6394**	RunNo: **6394**	
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184052**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
4-Isopropyltoluene	ND	0.050								
4-Methyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **b2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184052** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.44		0.5000		87.9	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		99.2	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		90.8	70	130			
Surr: Toluene-d8	0.47		0.5000		94.3	70	130			

Sample ID **100ng lcsc**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184056** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	114	70	130			
Toluene	1.0	0.050	1.000	0	102	80	120			
Chlorobenzene	1.0	0.050	1.000	0	100	70	130			
1,1-Dichloroethene	1.1	0.050	1.000	0	108	74	124			
Trichloroethene (TCE)	0.95	0.050	1.000	0	94.6	70	130			
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		90.9	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.6	70	130			
Surr: Dibromofluoromethane	0.45		0.5000		90.1	70	130			
Surr: Toluene-d8	0.46		0.5000		91.1	70	130			

Sample ID **1210582-003bms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184057** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	7.0	0.50	5.641	0.9563	108	80.9	118			
Toluene	5.9	0.50	5.641	0.06927	104	69.5	119			
Chlorobenzene	5.8	0.50	5.641	0	104	75.7	115			
1,1-Dichloroethene	5.8	0.50	5.641	0	103	68.6	126			
Trichloroethene (TCE)	5.2	0.50	5.641	0	92.0	68.7	115			
Surr: 1,2-Dichloroethane-d4	2.7		2.820		95.2	70	130			
Surr: 4-Bromofluorobenzene	2.1		2.820		73.3	70	130			
Surr: Dibromofluoromethane	2.7		2.820		95.5	70	130			
Surr: Toluene-d8	2.7		2.820		95.6	70	130			

Sample ID **1210582-003bmsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184058** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1210582-003bmsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184058** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	7.1	0.50	5.641	0.9563	109	80.9	118	0.812	20	
Toluene	5.7	0.50	5.641	0.06927	100	69.5	119	3.36	20	
Chlorobenzene	5.7	0.50	5.641	0	101	75.7	115	2.30	20	
1,1-Dichloroethene	5.6	0.50	5.641	0	99.4	68.6	126	3.18	24.8	
Trichloroethene (TCE)	5.2	0.50	5.641	0	91.9	68.7	115	0.0761	20	
Surr: 1,2-Dichloroethane-d4	2.8		2.820		98.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	2.0		2.820		69.9	70	130	0	0	S
Surr: Dibromofluoromethane	2.7		2.820		95.4	70	130	0	0	
Surr: Toluene-d8	2.6		2.820		93.2	70	130	0	0	

Sample ID **vcb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R6450**	RunNo: **6450**
Prep Date:	Analysis Date: **10/23/2012**	SeqNo: **185560** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Methyl tert-butyl ether (MTBE)	ND	0.050								
1,2,4-Trimethylbenzene	ND	0.050								
1,3,5-Trimethylbenzene	ND	0.050								
1,2-Dichloroethane (EDC)	ND	0.050								
1,2-Dibromoethane (EDB)	ND	0.050								
Naphthalene	ND	0.10								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
Acetone	ND	0.75								
Bromobenzene	ND	0.050								
Bromodichloromethane	ND	0.050								
Bromoform	ND	0.050								
Bromomethane	ND	0.15								
2-Butanone	ND	0.50								
Carbon disulfide	ND	0.50								
Carbon tetrachloride	ND	0.10								
Chlorobenzene	ND	0.050								
Chloroethane	ND	0.10								
Chloroform	ND	0.050								
Chloromethane	ND	0.15								
2-Chlorotoluene	ND	0.050								
4-Chlorotoluene	ND	0.050								
cis-1,2-DCE	ND	0.050								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **vcb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R6450**	RunNo: **6450**
Prep Date:	Analysis Date: **10/23/2012**	SeqNo: **185560** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
cis-1,3-Dichloropropene	ND	0.050								
1,2-Dibromo-3-chloropropane	ND	0.10								
Dibromochloromethane	ND	0.050								
Dibromomethane	ND	0.10								
1,2-Dichlorobenzene	ND	0.050								
1,3-Dichlorobenzene	ND	0.050								
1,4-Dichlorobenzene	ND	0.050								
Dichlorodifluoromethane	ND	0.050								
1,1-Dichloroethane	ND	0.10								
1,1-Dichloroethene	ND	0.050								
1,2-Dichloropropane	ND	0.050								
1,3-Dichloropropane	ND	0.050								
2,2-Dichloropropane	ND	0.10								
1,1-Dichloropropene	ND	0.10								
Hexachlorobutadiene	ND	0.10								
2-Hexanone	ND	0.50								
Isopropylbenzene	ND	0.050								
opyltoluene	ND	0.050								
nyl-2-pentanone	ND	0.50								
Methylene chloride	ND	0.15								
n-Butylbenzene	ND	0.15								
n-Propylbenzene	ND	0.050								
sec-Butylbenzene	ND	0.050								
Styrene	ND	0.050								
tert-Butylbenzene	ND	0.050								
1,1,1,2-Tetrachloroethane	ND	0.050								
1,1,2,2-Tetrachloroethane	ND	0.050								
Tetrachloroethene (PCE)	ND	0.050								
trans-1,2-DCE	ND	0.050								
trans-1,3-Dichloropropene	ND	0.050								
1,2,3-Trichlorobenzene	ND	0.10								
1,2,4-Trichlorobenzene	ND	0.050								
1,1,1-Trichloroethane	ND	0.050								
1,1,2-Trichloroethane	ND	0.050								
Trichloroethene (TCE)	ND	0.050								
Trichlorofluoromethane	ND	0.050								
1,2,3-Trichloropropane	ND	0.10								
Vinyl chloride	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		90.5	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.8	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **vcb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **R6450**	RunNo: **6450**
Prep Date:	Analysis Date: **10/23/2012**	SeqNo: **185560** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	0.46		0.5000		91.8	70	130			
Surr: Toluene-d8	0.46		0.5000		91.3	70	130			

Sample ID **1210734-012a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R6450**	RunNo: **6450**
Prep Date:	Analysis Date: **10/23/2012**	SeqNo: **185567** Units: **mg/Kg-dry**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.65	0.050	0.6367	0	102	80.9	118			
Toluene	0.68	0.050	0.6367	0	107	69.5	119			
Chlorobenzene	0.67	0.050	0.6367	0	105	75.7	115			
1,1-Dichloroethene	0.65	0.050	0.6367	0	103	68.6	126			
Trichloroethene (TCE)	0.62	0.050	0.6367	0	98.0	68.7	115			
Surr: 1,2-Dichloroethane-d4	0.29		0.3184		90.6	70	130			
Surr: 4-Bromofluorobenzene	0.30		0.3184		95.5	70	130			
Surr: Dibromofluoromethane	0.30		0.3184		92.8	70	130			
Surr: Toluene-d8	0.29		0.3184		92.3	70	130			

Sample ID **1210734-012a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R6450**	RunNo: **6450**
Prep Date:	Analysis Date: **10/23/2012**	SeqNo: **185568** Units: **mg/Kg-dry**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.63	0.050	0.6367	0	99.1	80.9	118	3.10	20	
Toluene	0.69	0.050	0.6367	0	109	69.5	119	2.15	20	
Chlorobenzene	0.70	0.050	0.6367	0	110	75.7	115	4.30	20	
1,1-Dichloroethene	0.64	0.050	0.6367	0	101	68.6	126	1.95	24.8	
Trichloroethene (TCE)	0.60	0.050	0.6367	0	93.9	68.7	115	4.28	20	
Surr: 1,2-Dichloroethane-d4	0.28		0.3184		88.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.30		0.3184		94.4	70	130	0	0	
Surr: Dibromofluoromethane	0.30		0.3184		94.1	70	130	0	0	
Surr: Toluene-d8	0.30		0.3184		93.2	70	130	0	0	

Sample ID **100ng icv**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R6450**	RunNo: **6450**
Prep Date:	Analysis Date: **10/23/2012**	SeqNo: **185691** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	100	70	130			
Toluene	1.1	0.050	1.000	0	106	80	120			
Chlorobenzene	1.1	0.050	1.000	0	107	70	130			
1,1-Dichloroethene	1.2	0.050	1.000	0	118	74	124			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **100ng icv**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **R6450**	RunNo: **6450**
Prep Date:	Analysis Date: **10/23/2012**	SeqNo: **185691** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	0.99	0.050	1.000	0	99.3	70	130			
Surr: 1,2-Dichloroethane-d4	1.5		1.500		97.7	70	130			
Surr: 4-Bromofluorobenzene	1.6		1.500		106	70	130			
Surr: Dibromofluoromethane	1.5		1.500		98.4	70	130			
Surr: Toluene-d8	1.5		1.500		99.9	70	130			

Sample ID **mb-4362**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBS**	Batch ID: **4362**	RunNo: **6485**
Prep Date: **10/17/2012**	Analysis Date: **10/24/2012**	SeqNo: **186696** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.3	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.1	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.5	70	130			
Surr: Toluene-d8	0.49		0.5000		98.5	70	130			

Sample ID **1210683-001ams**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **4282**	RunNo: **6485**
Prep Date: **10/12/2012**	Analysis Date: **10/24/2012**	SeqNo: **186734** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.4897		93.3	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.4897		94.5	70	130			
Surr: Dibromofluoromethane	0.45		0.4897		92.1	70	130			
Surr: Toluene-d8	0.47		0.4897		96.8	70	130			

Sample ID **1210683-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **4282**	RunNo: **6485**
Prep Date: **10/12/2012**	Analysis Date: **10/24/2012**	SeqNo: **186735** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.4888		93.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.41		0.4888		83.7	70	130	0	0	
Surr: Dibromofluoromethane	0.47		0.4888		95.8	70	130	0	0	
Surr: Toluene-d8	0.44		0.4888		89.7	70	130	0	0	

Sample ID **lcs-4362**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSS**	Batch ID: **4362**	RunNo: **6485**
Prep Date: **10/17/2012**	Analysis Date: **10/24/2012**	SeqNo: **186792** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		92.4	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **lcs-4362**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **LCSS**	Batch ID: **4362**	RunNo: **6485**	
Prep Date: **10/17/2012**	Analysis Date: **10/24/2012**	SeqNo: **186792**	Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.46		0.5000		92.7	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		93.1	70	130			
Surr: Toluene-d8	0.47		0.5000		94.6	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **mb-4280**	SampType: **MBLK**		TestCode: **Method 8260B/5035LOW: VOLATILES**		
Client ID: **PBS**	Batch ID: **4280**		RunNo: **6223**		
Prep Date: **10/12/2012**	Analysis Date: **10/12/2012**		SeqNo: **179318**	Units: **mg/Kg**	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
Naphthalene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
none	ND	0.0100								
on tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								

ifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-4280** SampType: **MBLK** TestCode: **Method 8260B/5035LOW: VOLATILES**

Client ID: **PBS** Batch ID: **4280** RunNo: **6223**

Prep Date: **10/12/2012** Analysis Date: **10/12/2012** SeqNo: **179318** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	ND	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	45.9		50.00		91.9	70	130			
Surr: 4-Bromofluorobenzene	46.6		50.00		93.3	70	130			
Surr: Dibromofluoromethane	49.4		50.00		98.8	70	130			
Surr: Toluene-d8	46.4		50.00		92.9	70	130			

Sample ID **lcs-4280** SampType: **LCS** TestCode: **Method 8260B/5035LOW: VOLATILES**

Client ID: **LCSS** Batch ID: **4280** RunNo: **6223**

Prep Date: **10/12/2012** Analysis Date: **10/12/2012** SeqNo: **180404** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	12.3	1.00	12.50	0	98.3	60	140			
Toluene	11.6	1.00	12.50	0	93.2	60	140			
Chlorobenzene	12.4	1.00	12.50	0	99.5	60	140			
1,1-Dichloroethene	13.9	1.00	12.50	0	111	60	140			
Trichloroethene (TCE)	10.5	1.00	12.50	0	84.3	60	140			
Surr: 1,2-Dichloroethane-d4	46.0		50.00		92.0	70	130			
Surr: 4-Bromofluorobenzene	46.6		50.00		93.2	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	Ics-4280	SampType:	LCS		TestCode:	Method 8260B/5035LOW: VOLATILES				
Client ID:	LCSS	Batch ID:	4280		RunNo:	6223				
Prep Date:	10/12/2012	Analysis Date:	10/12/2012		SeqNo:	180404	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	46.9		50.00		93.9	70	130			
Surr: Toluene-d8	42.8		50.00		85.7	70	130			

fiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-4304**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBS**	Batch ID: **4304**	RunNo: **6287**	
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **181172**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.25								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

nt: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **mb-4304**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4304**	RunNo: **6287**
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **181172** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
ɔaniline	ND	0.40								
ɔenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.3		3.330		99.2	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.670		87.3	20	131			
Surr: 2-Fluorophenol	2.9		3.330		86.6	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		77.7	25.1	149			
Surr: Nitrobenzene-d5	1.4		1.670		86.0	25.6	137			
Surr: Phenol-d5	2.8		3.330		85.1	20.3	132			

Sample ID **lcs-4304**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4304**	RunNo: **6287**
Prep Date: **10/15/2012**	Analysis Date: **10/16/2012**	SeqNo: **181173** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1210656

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **lcs-4304** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS** Batch ID: **4304** RunNo: **6287**

Prep Date: **10/15/2012** Analysis Date: **10/16/2012** SeqNo: **181173** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.5	0.20	1.670	0	87.0	49.7	98.1			
4-Chloro-3-methylphenol	2.8	0.50	3.330	0	83.9	43.8	89.1			
2-Chlorophenol	2.3	0.20	3.330	0	70.1	41.1	96.9			
1,4-Dichlorobenzene	1.2	0.20	1.670	0	70.8	41	97.4			
2,4-Dinitrotoluene	1.8	0.50	1.670	0	107	44.4	104			S
N-Nitrosodi-n-propylamine	1.4	0.20	1.670	0	84.8	39.1	86.9			
4-Nitrophenol	2.9	0.25	3.330	0	87.7	44.2	107			
Pentachlorophenol	2.1	0.40	3.330	0	62.0	36.2	80			
Phenol	2.5	0.20	3.330	0	76.4	42.7	92.7			
Pyrene	1.2	0.20	1.670	0	71.1	34.7	98.8			
1,2,4-Trichlorobenzene	1.3	0.20	1.670	0	79.0	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.3		3.330		98.8	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.670		89.8	20	131			
Surr: 2-Fluorophenol	2.5		3.330		75.9	11.9	130			
Surr: 4-Terphenyl-d14	1.2		1.670		74.2	25.1	149			
Surr: Nitrobenzene-d5	1.5		1.670		90.6	25.6	137			
Surr: Phenol-d5	2.8		3.330		84.9	20.3	132			

Sample ID **mb-4337** SampType: **MBLK** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **PBS** Batch ID: **4337** RunNo: **6376**

Prep Date: **10/16/2012** Analysis Date: **10/21/2012** SeqNo: **183352** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	3.2		3.330		95.0	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.670		88.8	20	131			
Surr: 2-Fluorophenol	2.5		3.330		75.7	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		76.8	25.1	149			
Surr: Nitrobenzene-d5	1.4		1.670		84.4	25.6	137			
Surr: Phenol-d5	2.6		3.330		78.4	20.3	132			

Sample ID **lcs-4337** SampType: **LCS** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **LCSS** Batch ID: **4337** RunNo: **6376**

Prep Date: **10/16/2012** Analysis Date: **10/21/2012** SeqNo: **183353** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	3.4		3.330		102	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.670		89.9	20	131			
Surr: 2-Fluorophenol	2.4		3.330		71.3	11.9	130			
Surr: 4-Terphenyl-d14	1.4		1.670		85.9	25.1	149			
Surr: Nitrobenzene-d5	1.6		1.670		93.1	25.6	137			
Surr: Phenol-d5	2.9		3.330		86.8	20.3	132			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **1210653-001CMS**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **BatchQC**	Batch ID: **4304**	RunNo: **6376**
Prep Date: **10/15/2012**	Analysis Date: **10/21/2012**	SeqNo: **183387** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.40	1.664	0	74.7	25.6	142			
4-Chloro-3-methylphenol	2.6	1.0	3.318	0	78.7	63.7	100			
2-Chlorophenol	2.4	0.40	3.318	0	73.0	22.2	126			
1,4-Dichlorobenzene	1.1	0.40	1.664	0	69.0	12.4	115			
2,4-Dinitrotoluene	1.3	1.0	1.664	0	78.8	14.9	142			
N-Nitrosodi-n-propylamine	1.4	0.40	1.664	0	81.4	13.9	136			
4-Nitrophenol	2.4	0.50	3.318	0	73.6	36.7	130			
Pentachlorophenol	2.2	0.80	3.318	0	66.4	15.8	113			
Phenol	2.5	0.40	3.318	0	73.9	25.1	124			
Pyrene	1.5	0.40	1.664	0	88.1	35.8	124			
1,2,4-Trichlorobenzene	1.4	0.40	1.664	0	82.7	30	113			
Surr: 2,4,6-Tribromophenol	3.3		3.318		101	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.664		94.0	20	131			
Surr: 2-Fluorophenol	2.9		3.318		88.7	11.9	130			
Surr: 4-Terphenyl-d14	1.5		1.664		91.7	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.664		103	25.6	137			
Surr: Phenol-d5	3.2		3.318		97.8	20.3	132			

Sample ID **1210692-010CMS**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **BatchQC**	Batch ID: **4337**	RunNo: **6376**
Prep Date: **10/16/2012**	Analysis Date: **10/21/2012**	SeqNo: **183388** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	3.3		3.350		97.8	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.680		94.5	20	131			
Surr: 2-Fluorophenol	2.7		3.350		79.9	11.9	130			
Surr: 4-Terphenyl-d14	1.4		1.680		83.3	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.680		104	25.6	137			
Surr: Phenol-d5	3.1		3.350		93.0	20.3	132			

Sample ID **1210653-001CMSD**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **BatchQC**	Batch ID: **4304**	RunNo: **6376**
Prep Date: **10/15/2012**	Analysis Date: **10/21/2012**	SeqNo: **183389** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.3	0.40	1.672	0	75.2	25.6	142	1.09	22	
4-Chloro-3-methylphenol	2.4	1.0	3.334	0	73.0	63.7	100	7.05	27.3	
2-Chlorophenol	2.3	0.40	3.334	0	67.8	22.2	126	6.86	26.3	
1,4-Dichlorobenzene	1.0	0.40	1.672	0	61.9	12.4	115	10.4	27.4	
2,4-Dinitrotoluene	1.3	1.0	1.672	0	77.2	14.9	142	1.50	27.4	
N-Nitrosodi-n-propylamine	1.3	0.40	1.672	0	75.4	13.9	136	7.14	22.6	
4-Nitrophenol	2.4	0.50	3.334	0	73.4	36.7	130	0.281	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1210653-001CMSD** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **BatchQC** Batch ID: **4304** RunNo: **6376**

Prep Date: **10/15/2012** Analysis Date: **10/21/2012** SeqNo: **183389** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Pentachlorophenol	2.2	0.80	3.334	0	66.2	15.8	113	0.258	27.1	
Phenol	2.1	0.40	3.334	0	62.9	25.1	124	15.6	32.2	
Pyrene	1.3	0.40	1.672	0	79.2	35.8	124	10.1	29.5	
1,2,4-Trichlorobenzene	1.3	0.40	1.672	0	80.6	30	113	2.14	27.8	
Surr: 2,4,6-Tribromophenol	3.1		3.334		92.3	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.5		1.672		87.3	20	131	0	0	
Surr: 2-Fluorophenol	2.8		3.334		83.7	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.4		1.672		84.8	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.5		1.672		91.5	25.6	137	0	0	
Surr: Phenol-d5	3.0		3.334		88.5	20.3	132	0	0	

Sample ID **1210692-010CMSD** SampType: **MSD** TestCode: **EPA Method 8270C: Semivolatiles**

Client ID: **BatchQC** Batch ID: **4337** RunNo: **6376**

Prep Date: **10/16/2012** Analysis Date: **10/21/2012** SeqNo: **183390** Units: **%REC**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	3.2		3.332		97.1	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.6		1.671		98.0	20	131	0	0	
Surr: 2-Fluorophenol	2.6		3.332		76.9	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.3		1.671		78.6	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.7		1.671		101	25.6	137	0	0	
Surr: Phenol-d5	3.0		3.332		89.3	20.3	132	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-4317	SampType:	mblk	TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	4317	RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012	SeqNo:	180708	Units:	mg/kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-4317	SampType:	lcs	TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	4317	RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012	SeqNo:	180709	Units:	mg/kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1667	0	98.7	80	120			

Sample ID	1210656-004CMS	SampType:	ms	TestCode:	EPA Method 7471: Mercury				
Client ID:	SWMU 14-23 (14-16'	Batch ID:	4317	RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012	SeqNo:	180735	Units:	mg/kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1654	0	96.4	75	125			

Sample ID	1210656-004CMSD	SampType:	msd	TestCode:	EPA Method 7471: Mercury				
Client ID:	SWMU 14-23 (14-16'	Batch ID:	4317	RunNo:	6270				
Prep Date:	10/15/2012	Analysis Date:	10/16/2012	SeqNo:	180736	Units:	mg/kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.16	0.033	0.1655	0	96.8	75	125	0.493	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	MB-4441	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	PBS	Batch ID:	4441	RunNo:	6493					
Prep Date:	10/22/2012	Analysis Date:	10/25/2012	SeqNo:	186822	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Iron	ND	1.0								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID	LCS-4441	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	LCSS	Batch ID:	4441	RunNo:	6493					
Prep Date:	10/22/2012	Analysis Date:	10/25/2012	SeqNo:	186823	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	23	2.5	25.00	0	92.2	80	120			
Arsenic	23	2.5	25.00	0	93.7	80	120			
Barium	23	0.10	25.00	0	92.2	80	120			
Beryllium	24	0.15	25.00	0	95.1	80	120			
Cadmium	23	0.10	25.00	0	92.8	80	120			
Chromium	23	0.30	25.00	0	91.8	80	120			
Cobalt	22	0.30	25.00	0	88.9	80	120			
Iron	23	1.0	25.00	0	93.7	80	120			
Lead	23	0.25	25.00	0	91.3	80	120			
Manganese	23	0.10	25.00	0.04450	90.3	80	120			
Nickel	22	0.50	25.00	0	87.6	80	120			
Selenium	22	2.5	25.00	0	87.2	80	120			
Vanadium	24	2.5	25.00	0	95.4	80	120			
Zinc	23	2.5	25.00	0	90.7	80	120			

Sample ID	1210656-001CMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	SWMU 14-23 (0-0.5')	Batch ID:	4441	RunNo:	6493					
Prep Date:	10/22/2012	Analysis Date:	10/25/2012	SeqNo:	186932	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	5.2	5.0	24.67	0	20.9	75	125			S
Arsenic	23	5.0	24.67	2.167	85.1	75	125			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	1210656-001CMS	SampType:	MS			TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	SWMU 14-23 (0-0.5')	Batch ID:	4441			RunNo:	6493			
Prep Date:	10/22/2012	Analysis Date:	10/25/2012			SeqNo:	186932	Units:	mg/Kg	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Beryllium	21	0.30	24.67	0.6108	83.1	75	125			
Cadmium	19	0.20	24.67	0	78.2	75	125			
Chromium	31	0.60	24.67	9.563	87.0	75	125			
Cobalt	21	0.60	24.67	3.401	71.6	75	125			S
Lead	22	0.50	24.67	4.192	72.5	75	125			S
Nickel	24	1.0	24.67	5.943	73.5	75	125			S
Selenium	11	5.0	24.67	0	43.9	75	125			S
Vanadium	41	5.0	24.67	17.94	92.0	75	125			

Sample ID	1210656-001CMSD	SampType:	MSD			TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	SWMU 14-23 (0-0.5')	Batch ID:	4441			RunNo:	6493			
Prep Date:	10/22/2012	Analysis Date:	10/25/2012			SeqNo:	186933	Units:	mg/Kg	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	5.0	24.23	0	20.3	75	125	200	20	S
Arsenic	23	5.0	24.23	2.167	87.5	75	125	0.929	20	
Beryllium	21	0.30	24.23	0.6108	85.4	75	125	0.909	20	
C ium	20	0.20	24.23	0	82.3	75	125	3.30	20	
ium	30	0.60	24.23	9.563	83.1	75	125	4.37	20	
Cobalt	21	0.60	24.23	3.401	72.9	75	125	0.0820	20	S
Lead	21	0.50	24.23	4.192	70.5	75	125	3.76	20	S
Nickel	24	1.0	24.23	5.943	75.3	75	125	0.450	20	
Selenium	13	5.0	24.23	0	54.1	75	125	19.1	20	S
Vanadium	39	5.0	24.23	17.94	88.1	75	125	3.41	20	

Sample ID	MB-4441	SampType:	MBLK			TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	PBS	Batch ID:	4441			RunNo:	6546			
Prep Date:	10/22/2012	Analysis Date:	10/29/2012			SeqNo:	188994	Units:	mg/Kg	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.25								

Sample ID	LCS-4441	SampType:	LCS			TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	LCSS	Batch ID:	4441			RunNo:	6546			
Prep Date:	10/22/2012	Analysis Date:	10/29/2012			SeqNo:	188995	Units:	mg/Kg	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	5.3	0.25	5.000	0	106	80	120			

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210656**

12-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	1210656-001CMS	SampType:	MS			TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	SWMU 14-23 (0-0.5')	Batch ID:	4441			RunNo:	6598			
Prep Date:	10/22/2012	Analysis Date:	10/31/2012			SeqNo:	190745	Units:	mg/Kg	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	4.2	0.50	4.935	0	86.1	75	125			

Sample ID	1210656-001CMSD	SampType:	MSD			TestCode:	EPA Method 6010B: Soil Metals			
Client ID:	SWMU 14-23 (0-0.5')	Batch ID:	4441			RunNo:	6598			
Prep Date:	10/22/2012	Analysis Date:	10/31/2012			SeqNo:	190746	Units:	mg/Kg	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	4.2	0.50	4.847	0	87.1	75	125	0.553	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: **Western Refining Gallup** Work Order Number: **1210656**

Received by/date: MG 10/12/12

Logged By: **Michelle Garcia** 10/12/2012 8:00:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 10/12/2012 9:27:38 AM Michelle Garcia

Reviewed By: IO 10/12/12

Chain of Custody

1.	Were seals intact?	Yes	No	Not Present	✓
2.	Is Chain of Custody complete?	Yes ✓	No	Not Present	
3.	How was the sample delivered?	FedEx			

Log In

4.	Coolers are present? (see 19. for cooler specific information)	Yes ✓	No	NA	
5.	Was an attempt made to cool the samples?	Yes ✓	No	NA	
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ✓	No	NA	
7.	Sample(s) in proper container(s)?	Yes ✓	No		
8.	Sufficient sample volume for indicated test(s)?	Yes ✓	No		
9.	Are samples (except VOA and ONG) properly preserved?	Yes ✓	No		
10.	Was preservative added to bottles?	Yes	No ✓	NA	
11.	VOA vials have zero headspace?	Yes	No	No VOA Vials ✓	
12.	Were any sample containers received broken?	Yes	No ✓		
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✓	No	# of preserved bottles checked for pH:	
14.	Are matrices correctly identified on Chain of Custody?	Yes ✓	No	(<2 or >12 unless noted)	
15.	Is it clear what analyses were requested?	Yes ✓	No	Adjusted?	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✓	No	Checked by:	

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes	No	NA ✓	

Person Notified: _____ Date: _____

By Whom: _____ Via: eMail | Phone | Fax | In Person

Regarding: _____

Client Instructions: _____

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: WESTERN REFINING SW INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: [ ] Yes [ ] No
Sample Temperature: 4°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210650	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/10/12	1345	SOIL	SWMU 14-23(0-0.5)	2 VIALS	SOBI	-001										X						
				2 VIALS	MeOH											X						
	↓		↓	3 JARS	—											X	X	X	X			
	1355		SWMU 14-23(1.5-2')	2 VIALS	SOBI	-002										X						
				2 VIALS	MeOH											X						
	↓		↓	3 JARS	—											X	X	X	X			
	1405		SWMU 14-23(12-14')	2 VIALS	MeOH	-003										X						
	↓		↓	3 JARS	—											X	X	X	X			
	1415		SWMU 14-23(14-16')	2 VIALS	SOBI	-004										X						
				2 VIALS	MeOH	per Tracy										X						
↓	↓	↓	↓	3 JARS	—	10/11/12										X	X	X	X			

Date: 10/11/12 Time: 0735 Relinquished by: [signature] Received by: [signature] Date: 10/12/12 Time: 0800

Date: Time: Relinquished by: Received by: Date: Time:

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Rpt	T	Analyte	Units	Synonym	MDL	LOD	LOQ
☐	A	Aluminum	mg/Kg		0.4481	0	
☑	A	Antimony	mg/Kg		0.629	0	
☑	A	Arsenic	mg/Kg		0.6263	0	
☑	A	Barium	mg/Kg		0.0609	0	
☑	A	Beryllium	mg/Kg		0.0093	0	
☐	A	Boron	mg/Kg		0.0826	0	
☑	A	Cadmium	mg/Kg		0.0271	0	
☐	A	Calcium	mg/Kg		6.9713	0	
☑	A	Chromium	mg/Kg		0.1184	0	
☑	A	Cobalt	mg/Kg		0.0689	0	
☐	A	Copper	mg/Kg		0.2323	0	
☑	A	Iron	mg/Kg		0.7476	0	
☑	A	Lead	mg/Kg		0.2194	0	
☐	A	Magnesium	mg/Kg		0.4651	0	
☑	A	Manganese	mg/Kg		0.0212	0	
☐	A	Molybdenum	mg/Kg		0.1423	0	
☑	A	Nickel	mg/Kg		0.1668	0	
☐	A	Potassium	mg/Kg		17.3925	0	
☑	A	Selenium	mg/Kg		1.4025	0	
☑	A	Silver	mg/Kg		0.0354	0	
☐	A	Sodium	mg/Kg		8.4278	0	
☐	A	Thallium	mg/Kg		1.1557	0	
☐	A	Tin	mg/Kg		0.8261	0	
☐	A	Titanium	mg/Kg		0.0342	0	
☐	A	Uranium	mg/Kg		0.7296	0	
☑	A	Vanadium	mg/Kg		0.0565	0	
☑	A	Zinc	mg/Kg		1.0066	0	
☐	I	Yttrium	%		0	0	
☐	I	Yttrium Radial	%		0	0	
☐	X	Uranium-confirmation	mg/Kg		0	0	
☐	X	Silicon	mg/Kg		0	0	

+ Hg
+ Cn

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

November 15, 2012

Scott Crouch
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301
TEL:
FAX

RE: SWMU NO.14 OrderNo.: 1210860

Dear Scott Crouch:

Hall Environmental Analysis Laboratory received 6 sample(s) on 10/18/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (0-0.5')
Collection Date: 10/17/2012 10:15:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	10/21/2012 5:50:17 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	10/21/2012 5:50:17 AM
Surr: DNOP	100	77.6-140		%REC	1	10/21/2012 5:50:17 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/27/2012 1:44:37 PM
Surr: BFB	99.5	84-116		%REC	1	10/27/2012 1:44:37 PM
EPA METHOD 7471: MERCURY						Analyst: **JLF**
Mercury	ND	0.033		mg/Kg	1	11/1/2012 4:09:42 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 12:21:41 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 12:21:41 PM
Barium	440	1.0		mg/Kg	10	10/25/2012 2:09:26 PM
Beryllium	0.80	0.30		mg/Kg	2	10/25/2012 12:21:41 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 12:21:41 PM
Chromium	10	0.60		mg/Kg	2	10/25/2012 12:21:41 PM
Cobalt	4.6	0.60		mg/Kg	2	10/25/2012 12:21:41 PM
Iron	15000	500		mg/Kg	500	11/2/2012 7:08:54 AM
Lead	2.5	0.50		mg/Kg	2	10/25/2012 12:21:41 PM
Manganese	450	1.0		mg/Kg	10	10/25/2012 2:09:26 PM
Nickel	8.0	1.0		mg/Kg	2	10/25/2012 12:21:41 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 12:21:41 PM
Silver	ND	0.50		mg/Kg	2	10/31/2012 1:23:58 PM
Vanadium	22	5.0		mg/Kg	2	10/25/2012 12:21:41 PM
Zinc	25	5.0		mg/Kg	2	10/25/2012 12:21:41 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Aniline	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Anthracene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Azobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
Benzyl alcohol	0.32	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (0-0.5')
Collection Date: 10/17/2012 10:15:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Carbazole	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/24/2012 9:26:31 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Chrysene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/24/2012 9:26:31 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/24/2012 9:26:31 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/24/2012 9:26:31 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/24/2012 9:26:31 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/24/2012 9:26:31 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Fluorene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Isophorone	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Naphthalene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (0-0.5')
Collection Date: 10/17/2012 10:15:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
3-Nitroaniline	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/24/2012 9:26:31 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/24/2012 9:26:31 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/24/2012 9:26:31 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Phenol	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Pyrene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Pyridine	ND	0.50		mg/Kg	1	10/24/2012 9:26:31 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/24/2012 9:26:31 PM
Surr: 2,4,6-Tribromophenol	84.3	21.3-145		%REC	1	10/24/2012 9:26:31 PM
Surr: 2-Fluorobiphenyl	83.6	20-131		%REC	1	10/24/2012 9:26:31 PM
Surr: 2-Fluorophenol	76.1	11.9-130		%REC	1	10/24/2012 9:26:31 PM
Surr: 4-Terphenyl-d14	74.2	25.1-149		%REC	1	10/24/2012 9:26:31 PM
Surr: Nitrobenzene-d5	88.7	25.6-137		%REC	1	10/24/2012 9:26:31 PM
Surr: Phenol-d5	75.5	20.3-132		%REC	1	10/24/2012 9:26:31 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: RAA
Benzene	0.00213	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Toluene	0.00222	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Ethylbenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Xylenes, Total	0.00380	0.00160		mg/Kg	1	10/19/2012 1:07:47 PM
Methyl tert-butyl ether (MTBE)	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,2,4-Trimethylbenzene	0.000935	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,3,5-Trimethylbenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,2-Dichloroethane (EDC)	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,2-Dibromoethane (EDB)	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Naphthalene	ND	0.00160		mg/Kg	1	10/19/2012 1:07:47 PM
1-Methylnaphthalene	ND	0.00320		mg/Kg	1	10/19/2012 1:07:47 PM
2-Methylnaphthalene	ND	0.00320		mg/Kg	1	10/19/2012 1:07:47 PM
Acetone	0.0480	0.00799		mg/Kg	1	10/19/2012 1:07:47 PM
Bromobenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Bromodichloromethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Bromoform	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Bromomethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
2-Butanone	0.00846	0.00799		mg/Kg	1	10/19/2012 1:07:47 PM
Carbon tetrachloride	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Chlorobenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Chloroethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-001 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (0-0.5')
Collection Date: 10/17/2012 10:15:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: RAA
Chloroform	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Chloromethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
2-Chlorotoluene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Carbon disulfide	ND	0.00799		mg/Kg	1	10/19/2012 1:07:47 PM
4-Chlorotoluene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
cis-1,2-DCE	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
cis-1,3-Dichloropropene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,2-Dibromo-3-chloropropane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Dibromochloromethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Dibromomethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,2-Dichlorobenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,3-Dichlorobenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,4-Dichlorobenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Dichlorodifluoromethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,1-Dichloroethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,1-Dichloroethene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,2-Dichloropropane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,3-Dichloropropane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
2,2-Dichloropropane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,1-Dichloropropene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Hexachlorobutadiene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Isopropylbenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
4-Isopropyltoluene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Methylene chloride	ND	0.00240		mg/Kg	1	10/19/2012 1:07:47 PM
n-Butylbenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
2-Hexanone	ND	0.00799		mg/Kg	1	10/19/2012 1:07:47 PM
n-Propylbenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
sec-Butylbenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Styrene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
4-Methyl-2-pentanone	ND	0.00799		mg/Kg	1	10/19/2012 1:07:47 PM
tert-Butylbenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,1,1,2-Tetrachloroethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,1,2,2-Tetrachloroethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Tetrachloroethene (PCE)	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
trans-1,2-DCE	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
trans-1,3-Dichloropropene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,2,3-Trichlorobenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,2,4-Trichlorobenzene	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,1,1-Trichloroethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
1,1,2-Trichloroethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Trichloroethene (TCE)	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Trichlorofluoromethane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-24 (0-0.5')
Project: SWMU NO.14
Collection Date: 10/17/2012 10:15:00 AM
Lab ID: 1210860-001 **Matrix:** SOIL **Received Date:** 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Vinyl chloride	ND	0.000799		mg/Kg	1	10/19/2012 1:07:47 PM
Surr: 1,2-Dichloroethane-d4	87.9	70-130		%REC	1	10/19/2012 1:07:47 PM
Surr: 4-Bromofluorobenzene	103	70-130		%REC	1	10/19/2012 1:07:47 PM
Surr: Dibromofluoromethane	100	70-130		%REC	1	10/19/2012 1:07:47 PM
Surr: Toluene-d8	93.6	70-130		%REC	1	10/19/2012 1:07:47 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (1.5-2')
Collection Date: 10/17/2012 10:30:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	10/19/2012 1:24:09 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	10/19/2012 1:24:09 PM
Surr: DNOP	95.6	77.6-140		%REC	1	10/19/2012 1:24:09 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	10/27/2012 1:15:50 PM
Surr: BFB	96.3	84-116		%REC	1	10/27/2012 1:15:50 PM
EPA METHOD 7471: MERCURY						Analyst: **JLF**
Mercury	ND	0.033		mg/Kg	1	11/1/2012 4:11:28 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **JLF**
Antimony	ND	5.0		mg/Kg	2	10/25/2012 12:26:50 PM
Arsenic	ND	5.0		mg/Kg	2	10/25/2012 12:26:50 PM
Barium	43	0.20		mg/Kg	2	10/25/2012 12:26:50 PM
Beryllium	0.83	0.30		mg/Kg	2	10/25/2012 12:26:50 PM
Cadmium	ND	0.20		mg/Kg	2	10/25/2012 12:26:50 PM
Chromium	7.8	0.60		mg/Kg	2	10/25/2012 12:26:50 PM
Cobalt	3.5	0.60		mg/Kg	2	10/25/2012 12:26:50 PM
Iron	16000	500		mg/Kg	500	11/2/2012 7:21:58 AM
Lead	3.3	0.50		mg/Kg	2	10/25/2012 12:26:50 PM
Manganese	230	1.0		mg/Kg	10	10/25/2012 2:14:32 PM
Nickel	6.4	1.0		mg/Kg	2	10/25/2012 12:26:50 PM
Selenium	ND	5.0		mg/Kg	2	10/25/2012 12:26:50 PM
Silver	ND	0.50		mg/Kg	2	10/31/2012 1:26:49 PM
Vanadium	14	5.0		mg/Kg	2	10/25/2012 12:26:50 PM
Zinc	12	5.0		mg/Kg	2	10/25/2012 12:26:50 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Acenaphthylene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Aniline	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Anthracene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Azobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Benz(a)anthracene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Benzo(a)pyrene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Benzo(g,h,i)perylene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Benzo(k)fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Benzoic acid	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
Benzyl alcohol	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Bis(2-chloroethoxy)methane	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Bis(2-chloroethyl)ether	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Bis(2-chloroisopropyl)ether	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (1.5-2')
Collection Date: 10/17/2012 10:30:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-ethylhexyl)phthalate	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
4-Bromophenyl phenyl ether	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Carbazole	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
4-Chloro-3-methylphenol	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
4-Chloroaniline	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
2-Chloronaphthalene	ND	0.25		mg/Kg	1	10/24/2012 9:56:18 PM
2-Chlorophenol	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Chrysene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Di-n-butyl phthalate	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
Di-n-octyl phthalate	ND	0.40		mg/Kg	1	10/24/2012 9:56:18 PM
Dibenz(a,h)anthracene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Dibenzofuran	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
3,3'-Dichlorobenzidine	ND	0.25		mg/Kg	1	10/24/2012 9:56:18 PM
Diethyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Dimethyl phthalate	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
2,4-Dichlorophenol	ND	0.40		mg/Kg	1	10/24/2012 9:56:18 PM
2,4-Dimethylphenol	ND	0.30		mg/Kg	1	10/24/2012 9:56:18 PM
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
2,4-Dinitrophenol	ND	0.40		mg/Kg	1	10/24/2012 9:56:18 PM
2,4-Dinitrotoluene	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
2,6-Dinitrotoluene	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
Fluoranthene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Fluorene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Hexachlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Hexachlorobutadiene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Hexachlorocyclopentadiene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Hexachloroethane	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Isophorone	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
2-Methylphenol	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
3+4-Methylphenol	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Naphthalene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
2-Nitroaniline	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (1.5-2')
Collection Date: 10/17/2012 10:30:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
3-Nitroaniline	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
4-Nitroaniline	ND	0.40		mg/Kg	1	10/24/2012 9:56:18 PM
Nitrobenzene	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
2-Nitrophenol	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
4-Nitrophenol	ND	0.25		mg/Kg	1	10/24/2012 9:56:18 PM
Pentachlorophenol	ND	0.40		mg/Kg	1	10/24/2012 9:56:18 PM
Phenanthrene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Phenol	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Pyrene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Pyridine	ND	0.50		mg/Kg	1	10/24/2012 9:56:18 PM
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	10/24/2012 9:56:18 PM
Surr: 2,4,6-Tribromophenol	73.3	21.3-145		%REC	1	10/24/2012 9:56:18 PM
Surr: 2-Fluorobiphenyl	72.5	20-131		%REC	1	10/24/2012 9:56:18 PM
Surr: 2-Fluorophenol	71.3	11.9-130		%REC	1	10/24/2012 9:56:18 PM
Surr: 4-Terphenyl-d14	65.3	25.1-149		%REC	1	10/24/2012 9:56:18 PM
Surr: Nitrobenzene-d5	86.0	25.6-137		%REC	1	10/24/2012 9:56:18 PM
Surr: Phenol-d5	72.1	20.3-132		%REC	1	10/24/2012 9:56:18 PM
METHOD 8260B/5035LOW: VOLATILES						Analyst: RAA
Benzene	0.00129	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Toluene	0.000908	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Ethylbenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Xylenes, Total	ND	0.00156		mg/Kg	1	10/19/2012 1:38:40 PM
Methyl tert-butyl ether (MTBE)	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,2,4-Trimethylbenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,3,5-Trimethylbenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,2-Dichloroethane (EDC)	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,2-Dibromoethane (EDB)	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Naphthalene	ND	0.00156		mg/Kg	1	10/19/2012 1:38:40 PM
1-Methylnaphthalene	ND	0.00313		mg/Kg	1	10/19/2012 1:38:40 PM
2-Methylnaphthalene	ND	0.00313		mg/Kg	1	10/19/2012 1:38:40 PM
Acetone	0.0202	0.00782		mg/Kg	1	10/19/2012 1:38:40 PM
Bromobenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Bromodichloromethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Bromoform	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Bromomethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
2-Butanone	ND	0.00782		mg/Kg	1	10/19/2012 1:38:40 PM
Carbon tetrachloride	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Chlorobenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Chloroethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-002 **Matrix:** SOIL

Client Sample ID: SWMU 14-24 (1.5-2')
Collection Date: 10/17/2012 10:30:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
Chloroform	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Chloromethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
2-Chlorotoluene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Carbon disulfide	ND	0.00782		mg/Kg	1	10/19/2012 1:38:40 PM
4-Chlorotoluene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
cis-1,2-DCE	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
cis-1,3-Dichloropropene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,2-Dibromo-3-chloropropane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Dibromochloromethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Dibromomethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,2-Dichlorobenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,3-Dichlorobenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,4-Dichlorobenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Dichlorodifluoromethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,1-Dichloroethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,1-Dichloroethene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,2-Dichloropropane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,3-Dichloropropane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
2,2-Dichloropropane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,1-Dichloropropene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Hexachlorobutadiene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Isopropylbenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
4-Isopropyltoluene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Methylene chloride	ND	0.00235		mg/Kg	1	10/19/2012 1:38:40 PM
n-Butylbenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
2-Hexanone	ND	0.00782		mg/Kg	1	10/19/2012 1:38:40 PM
n-Propylbenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
sec-Butylbenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Styrene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
4-Methyl-2-pentanone	ND	0.00782		mg/Kg	1	10/19/2012 1:38:40 PM
tert-Butylbenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,1,1,2-Tetrachloroethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,1,2,2-Tetrachloroethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Tetrachloroethene (PCE)	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
trans-1,2-DCE	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
trans-1,3-Dichloropropene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,2,3-Trichlorobenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,2,4-Trichlorobenzene	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,1,1-Trichloroethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
1,1,2-Trichloroethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Trichloroethene (TCE)	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Trichlorofluoromethane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH greater than 2
RL	Reporting Detection Limit
B	Analyte detected in the associated Method Blank
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits
S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-24 (1.5-2')
Project: SWMU NO.14
Collection Date: 10/17/2012 10:30:00 AM
Lab ID: 1210860-002 **Matrix:** SOIL **Received Date:** 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
METHOD 8260B/5035LOW: VOLATILES						Analyst: **RAA**
1,2,3-Trichloropropane	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Vinyl chloride	ND	0.000782		mg/Kg	1	10/19/2012 1:38:40 PM
Surr: 1,2-Dichloroethane-d4	91.0	70-130		%REC	1	10/19/2012 1:38:40 PM
Surr: 4-Bromofluorobenzene	82.8	70-130		%REC	1	10/19/2012 1:38:40 PM
Surr: Dibromofluoromethane	97.2	70-130		%REC	1	10/19/2012 1:38:40 PM
Surr: Toluene-d8	90.9	70-130		%REC	1	10/19/2012 1:38:40 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-003 **Matrix:** AQUEOUS

Client Sample ID: EB101712
Collection Date: 10/17/2012 11:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/20/2012 1:57:39 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/20/2012 1:57:39 AM
Surr: DNOP	98.9	79.5-166		%REC	1	10/20/2012 1:57:39 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	ND	0.10		mg/L	1	10/18/2012 2:51:00 PM
Chloride	ND	0.50		mg/L	1	10/18/2012 2:51:00 PM
Sulfate	ND	0.50		mg/L	1	10/18/2012 2:51:00 PM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Barium	ND	0.0020		mg/L	1	10/24/2012 10:58:41 AM
Beryllium	ND	0.0020		mg/L	1	10/24/2012 10:58:41 AM
Cadmium	ND	0.0020		mg/L	1	10/24/2012 10:58:41 AM
Chromium	ND	0.0060		mg/L	1	10/24/2012 10:58:41 AM
Cobalt	ND	0.0060		mg/L	1	10/24/2012 10:58:41 AM
Iron	ND	0.020		mg/L	1	10/30/2012 10:09:01 AM
Manganese	ND	0.0020		mg/L	1	10/24/2012 10:58:41 AM
Nickel	ND	0.010		mg/L	1	10/24/2012 10:58:41 AM
Silver	ND	0.0050		mg/L	1	10/24/2012 10:58:41 AM
Vanadium	ND	0.050		mg/L	1	10/24/2012 10:58:41 AM
Zinc	ND	0.010		mg/L	1	10/24/2012 10:58:41 AM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0010		mg/L	1	10/25/2012 7:22:08 PM
Arsenic	ND	0.0010		mg/L	1	10/25/2012 7:22:08 PM
Lead	ND	0.0010		mg/L	1	10/25/2012 7:22:08 PM
Selenium	ND	0.0010		mg/L	1	10/25/2012 7:22:08 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	10/24/2012 7:56:59 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Acenaphthylene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Aniline	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Anthracene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Azobenzene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Benz(a)anthracene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Benzoic acid	ND	20		µg/L	1	10/22/2012 8:17:14 PM
Benzyl alcohol	ND	10		µg/L	1	10/22/2012 8:17:14 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-003 **Matrix:** AQUEOUS

Client Sample ID: EB101712
Collection Date: 10/17/2012 11:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/22/2012 8:17:14 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Carbazole	ND	10		µg/L	1	10/22/2012 8:17:14 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
4-Chloroaniline	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2-Chlorophenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Chrysene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Di-n-octyl phthalate	ND	20		µg/L	1	10/22/2012 8:17:14 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Dibenzofuran	ND	10		µg/L	1	10/22/2012 8:17:14 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Diethyl phthalate	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Dimethyl phthalate	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/22/2012 8:17:14 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/22/2012 8:17:14 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/22/2012 8:17:14 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Fluoranthene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Fluorene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Hexachlorobenzene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Hexachloroethane	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Isophorone	ND	10		µg/L	1	10/22/2012 8:17:14 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2-Methylphenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
3+4-Methylphenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/22/2012 8:17:14 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-003 **Matrix:** AQUEOUS

Client Sample ID: EB101712
Collection Date: 10/17/2012 11:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
N-Nitrosodimethylamine	ND	10		µg/L	1	10/22/2012 8:17:14 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Naphthalene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2-Nitroaniline	ND	10		µg/L	1	10/22/2012 8:17:14 PM
3-Nitroaniline	ND	10		µg/L	1	10/22/2012 8:17:14 PM
4-Nitroaniline	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Nitrobenzene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2-Nitrophenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
4-Nitrophenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Pentachlorophenol	ND	20		µg/L	1	10/22/2012 8:17:14 PM
Phenanthrene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Phenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Pyrene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Pyridine	ND	10		µg/L	1	10/22/2012 8:17:14 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/22/2012 8:17:14 PM
Surr: 2,4,6-Tribromophenol	79.5	42.9-124		%REC	1	10/22/2012 8:17:14 PM
Surr: 2-Fluorobiphenyl	72.6	40-108		%REC	1	10/22/2012 8:17:14 PM
Surr: 2-Fluorophenol	52.9	23.6-94.8		%REC	1	10/22/2012 8:17:14 PM
Surr: 4-Terphenyl-d14	72.0	41.9-103		%REC	1	10/22/2012 8:17:14 PM
Surr: Nitrobenzene-d5	71.9	42.6-114		%REC	1	10/22/2012 8:17:14 PM
Surr: Phenol-d5	39.3	20.3-74.7		%REC	1	10/22/2012 8:17:14 PM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Toluene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Ethylbenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Naphthalene	ND	2.0		µg/L	1	10/19/2012 5:03:12 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/19/2012 5:03:12 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/19/2012 5:03:12 PM
Acetone	ND	10		µg/L	1	10/19/2012 5:03:12 PM
Bromobenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Bromoform	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Bromomethane	ND	3.0		µg/L	1	10/19/2012 5:03:12 PM
2-Butanone	ND	10		µg/L	1	10/19/2012 5:03:12 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-003
Matrix: AQUEOUS
Client Sample ID: EB101712
Collection Date: 10/17/2012 11:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Carbon disulfide	ND	10		µg/L	1	10/19/2012 5:03:12 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Chlorobenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Chloroethane	ND	2.0		µg/L	1	10/19/2012 5:03:12 PM
Chloroform	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Chloromethane	ND	3.0		µg/L	1	10/19/2012 5:03:12 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/19/2012 5:03:12 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Dibromomethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/19/2012 5:03:12 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
2-Hexanone	ND	10		µg/L	1	10/19/2012 5:03:12 PM
Isopropylbenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/19/2012 5:03:12 PM
Methylene Chloride	ND	3.0		µg/L	1	10/19/2012 5:03:12 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/19/2012 5:03:12 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Styrene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/19/2012 5:03:12 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB101712
Project: SWMU NO.14
Collection Date: 10/17/2012 11:00:00 AM
Lab ID: 1210860-003
Matrix: AQUEOUS
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/19/2012 5:03:12 PM
Vinyl chloride	ND	1.0		µg/L	1	10/19/2012 5:03:12 PM
Xylenes, Total	ND	1.5		µg/L	1	10/19/2012 5:03:12 PM
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	1	10/19/2012 5:03:12 PM
Surr: 4-Bromofluorobenzene	98.9	70-130		%REC	1	10/19/2012 5:03:12 PM
Surr: Dibromofluoromethane	98.0	70-130		%REC	1	10/19/2012 5:03:12 PM
Surr: Toluene-d8	113	70-130		%REC	1	10/19/2012 5:03:12 PM
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/21/2012 1:50:20 PM
Surr: BFB	98.2	70-130		%REC	1	10/21/2012 1:50:20 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-004 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-OAPIS-1GW
Collection Date: 10/16/2012 9:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/20/2012 2:22:46 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/20/2012 2:22:46 AM
Surr: DNOP	103	79.5-166		%REC	1	10/20/2012 2:22:46 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	ND	0.10		mg/L	1	10/18/2012 2:26:11 PM
Chloride	ND	0.50		mg/L	1	10/18/2012 2:26:11 PM
Sulfate	ND	0.50		mg/L	1	10/18/2012 2:26:11 PM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Barium	0.68	0.0020		mg/L	1	10/24/2012 11:16:26 AM
Beryllium	ND	0.0020		mg/L	1	10/24/2012 11:16:26 AM
Cadmium	ND	0.0020		mg/L	1	10/24/2012 11:16:26 AM
Chromium	0.012	0.0060		mg/L	1	10/24/2012 11:16:26 AM
Cobalt	0.044	0.0060		mg/L	1	10/24/2012 11:16:26 AM
Iron	5.6	0.20	*	mg/L	10	10/26/2012 3:07:03 PM
Manganese	2.0	0.010	*	mg/L	5	10/24/2012 11:19:39 AM
Nickel	0.13	0.010	*	mg/L	1	10/24/2012 11:16:26 AM
Silver	ND	0.0050		mg/L	1	10/24/2012 11:16:26 AM
Vanadium	ND	0.050		mg/L	1	10/24/2012 11:16:26 AM
Zinc	0.099	0.010		mg/L	1	10/24/2012 11:16:26 AM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0025		mg/L	2.5	10/24/2012 3:08:04 PM
Arsenic	0.0085	0.0025		mg/L	2.5	10/24/2012 3:08:04 PM
Lead	0.010	0.0025		mg/L	2.5	10/24/2012 3:08:04 PM
Selenium	0.016	0.0025		mg/L	2.5	10/24/2012 3:08:04 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	10/24/2012 7:58:46 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Acenaphthylene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Aniline	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Anthracene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Azobenzene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Benz(a)anthracene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Benzoic acid	ND	20		µg/L	1	10/22/2012 8:46:44 PM
Benzyl alcohol	ND	10		µg/L	1	10/22/2012 8:46:44 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: SWMU 14-OAPIS-1GW
Project: SWMU NO.14
Collection Date: 10/16/2012 9:00:00 AM
Lab ID: 1210860-004 **Matrix:** AQUEOUS **Received Date:** 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/22/2012 8:46:44 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Carbazole	ND	10		µg/L	1	10/22/2012 8:46:44 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
4-Chloroaniline	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2-Chlorophenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Chrysene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Di-n-octyl phthalate	ND	20		µg/L	1	10/22/2012 8:46:44 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Dibenzofuran	ND	10		µg/L	1	10/22/2012 8:46:44 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Diethyl phthalate	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Dimethyl phthalate	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/22/2012 8:46:44 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/22/2012 8:46:44 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/22/2012 8:46:44 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Fluoranthene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Fluorene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Hexachlorobenzene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Hexachloroethane	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Isophorone	ND	10		µg/L	1	10/22/2012 8:46:44 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2-Methylphenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
3+4-Methylphenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/22/2012 8:46:44 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-004 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-OAPIS-1GW
Collection Date: 10/16/2012 9:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
N-Nitrosodimethylamine	ND	10		µg/L	1	10/22/2012 8:46:44 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Naphthalene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2-Nitroaniline	ND	10		µg/L	1	10/22/2012 8:46:44 PM
3-Nitroaniline	ND	10		µg/L	1	10/22/2012 8:46:44 PM
4-Nitroaniline	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Nitrobenzene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2-Nitrophenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
4-Nitrophenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Pentachlorophenol	ND	20		µg/L	1	10/22/2012 8:46:44 PM
Phenanthrene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Phenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Pyrene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Pyridine	ND	10		µg/L	1	10/22/2012 8:46:44 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/22/2012 8:46:44 PM
Surr: 2,4,6-Tribromophenol	76.2	42.9-124		%REC	1	10/22/2012 8:46:44 PM
Surr: 2-Fluorobiphenyl	75.3	40-108		%REC	1	10/22/2012 8:46:44 PM
Surr: 2-Fluorophenol	60.6	23.6-94.8		%REC	1	10/22/2012 8:46:44 PM
Surr: 4-Terphenyl-d14	77.9	41.9-103		%REC	1	10/22/2012 8:46:44 PM
Surr: Nitrobenzene-d5	90.4	42.6-114		%REC	1	10/22/2012 8:46:44 PM
Surr: Phenol-d5	45.7	20.3-74.7		%REC	1	10/22/2012 8:46:44 PM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	13	10		µg/L	10	10/19/2012 6:35:45 PM
Toluene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Ethylbenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Methyl tert-butyl ether (MTBE)	440	10		µg/L	10	10/19/2012 6:35:45 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Naphthalene	ND	20		µg/L	10	10/19/2012 6:35:45 PM
1-Methylnaphthalene	ND	40		µg/L	10	10/19/2012 6:35:45 PM
2-Methylnaphthalene	ND	40		µg/L	10	10/19/2012 6:35:45 PM
Acetone	ND	100		µg/L	10	10/19/2012 6:35:45 PM
Bromobenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Bromodichloromethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Bromoform	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Bromomethane	ND	30		µg/L	10	10/19/2012 6:35:45 PM
2-Butanone	ND	100		µg/L	10	10/19/2012 6:35:45 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-004 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-OAPIS-1GW
Collection Date: 10/16/2012 9:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Carbon disulfide	ND	100		µg/L	10	10/19/2012 6:35:45 PM
Carbon Tetrachloride	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Chlorobenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Chloroethane	ND	20		µg/L	10	10/19/2012 6:35:45 PM
Chloroform	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Chloromethane	ND	30		µg/L	10	10/19/2012 6:35:45 PM
2-Chlorotoluene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
4-Chlorotoluene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
cis-1,2-DCE	ND	10		µg/L	10	10/19/2012 6:35:45 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	10/19/2012 6:35:45 PM
Dibromochloromethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Dibromomethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Dichlorodifluoromethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,1-Dichloroethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,1-Dichloroethene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,2-Dichloropropane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,3-Dichloropropane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
2,2-Dichloropropane	ND	20		µg/L	10	10/19/2012 6:35:45 PM
1,1-Dichloropropene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Hexachlorobutadiene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
2-Hexanone	ND	100		µg/L	10	10/19/2012 6:35:45 PM
Isopropylbenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
4-Isopropyltoluene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	10/19/2012 6:35:45 PM
Methylene Chloride	ND	30		µg/L	10	10/19/2012 6:35:45 PM
n-Butylbenzene	ND	30		µg/L	10	10/19/2012 6:35:45 PM
n-Propylbenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
sec-Butylbenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Styrene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
tert-Butylbenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	10/19/2012 6:35:45 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	10/19/2012 6:35:45 PM
trans-1,2-DCE	ND	10		µg/L	10	10/19/2012 6:35:45 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-004 **Matrix:** AQUEOUS

Client Sample ID: SWMU 14-OAPIS-1GW
Collection Date: 10/16/2012 9:00:00 AM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1,2-Trichloroethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Trichloroethene (TCE)	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Trichlorofluoromethane	ND	10		µg/L	10	10/19/2012 6:35:45 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	10/19/2012 6:35:45 PM
Vinyl chloride	ND	10		µg/L	10	10/19/2012 6:35:45 PM
Xylenes, Total	ND	15		µg/L	10	10/19/2012 6:35:45 PM
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	10	10/19/2012 6:35:45 PM
Surr: 4-Bromofluorobenzene	91.8	70-130		%REC	10	10/19/2012 6:35:45 PM
Surr: Dibromofluoromethane	92.5	70-130		%REC	10	10/19/2012 6:35:45 PM
Surr: Toluene-d8	110	70-130		%REC	10	10/19/2012 6:35:45 PM
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	10/22/2012 1:13:58 AM
Surr: BFB	94.3	70-130		%REC	10	10/22/2012 1:13:58 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-005 **Matrix:** AQUEOUS

Client Sample ID: EB101612
Collection Date: 10/16/2012 5:20:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE						Analyst: **JMP**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	10/20/2012 2:47:36 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	10/20/2012 2:47:36 AM
Surr: DNOP	99.6	79.5-166		%REC	1	10/20/2012 2:47:36 AM
EPA METHOD 300.0: ANIONS						Analyst: **SRM**
Fluoride	2.9	0.50		mg/L	5	10/18/2012 4:05:28 PM
Chloride	1900	100		mg/L	200	10/19/2012 1:10:23 PM
Sulfate	100	2.5		mg/L	5	10/18/2012 4:05:28 PM
EPA METHOD 200.7: METALS						Analyst: **ELS**
Barium	ND	0.0020		mg/L	1	10/24/2012 11:32:58 AM
Beryllium	ND	0.0020		mg/L	1	10/24/2012 11:32:58 AM
Cadmium	ND	0.0020		mg/L	1	10/24/2012 11:32:58 AM
Chromium	ND	0.0060		mg/L	1	10/24/2012 11:32:58 AM
Cobalt	0.0072	0.0060		mg/L	1	10/24/2012 11:32:58 AM
Iron	ND	0.020		mg/L	1	11/5/2012 1:26:43 PM
Manganese	ND	0.0020		mg/L	1	10/24/2012 11:32:58 AM
Nickel	ND	0.010		mg/L	1	10/24/2012 11:32:58 AM
Silver	ND	0.0050		mg/L	1	10/24/2012 11:32:58 AM
Vanadium	ND	0.050		mg/L	1	10/24/2012 11:32:58 AM
Zinc	ND	0.010		mg/L	1	10/24/2012 11:32:58 AM
EPA 200.8: METALS						Analyst: **DBD**
Antimony	ND	0.0010		mg/L	1	10/25/2012 7:26:04 PM
Arsenic	ND	0.0010		mg/L	1	10/25/2012 7:26:04 PM
Lead	ND	0.0010		mg/L	1	10/25/2012 7:26:04 PM
Selenium	ND	0.0010		mg/L	1	10/25/2012 7:26:04 PM
EPA METHOD 245.1: MERCURY						Analyst: **IDC**
Mercury	ND	0.00020		mg/L	1	10/24/2012 8:00:32 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: **JDC**
Acenaphthene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Acenaphthylene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Aniline	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Anthracene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Azobenzene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Benz(a)anthracene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Benzo(a)pyrene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Benzo(b)fluoranthene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Benzo(g,h,i)perylene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Benzo(k)fluoranthene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Benzoic acid	ND	20		µg/L	1	10/22/2012 9:16:11 PM
Benzyl alcohol	ND	10		µg/L	1	10/22/2012 9:16:11 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB101612
Project: SWMU NO.14
Collection Date: 10/16/2012 5:20:00 PM
Lab ID: 1210860-005
Matrix: AQUEOUS
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
Bis(2-chloroethoxy)methane	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Bis(2-chloroethyl)ether	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Bis(2-chloroisopropyl)ether	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Bis(2-ethylhexyl)phthalate	ND	10		µg/L	1	10/22/2012 9:16:11 PM
4-Bromophenyl phenyl ether	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Butyl benzyl phthalate	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Carbazole	ND	10		µg/L	1	10/22/2012 9:16:11 PM
4-Chloro-3-methylphenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
4-Chloroaniline	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2-Chloronaphthalene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2-Chlorophenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
4-Chlorophenyl phenyl ether	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Chrysene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Di-n-butyl phthalate	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Di-n-octyl phthalate	ND	20		µg/L	1	10/22/2012 9:16:11 PM
Dibenz(a,h)anthracene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Dibenzofuran	ND	10		µg/L	1	10/22/2012 9:16:11 PM
1,2-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
1,3-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
1,4-Dichlorobenzene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
3,3'-Dichlorobenzidine	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Diethyl phthalate	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Dimethyl phthalate	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2,4-Dichlorophenol	ND	20		µg/L	1	10/22/2012 9:16:11 PM
2,4-Dimethylphenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
4,6-Dinitro-2-methylphenol	ND	20		µg/L	1	10/22/2012 9:16:11 PM
2,4-Dinitrophenol	ND	20		µg/L	1	10/22/2012 9:16:11 PM
2,4-Dinitrotoluene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2,6-Dinitrotoluene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Fluoranthene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Fluorene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Hexachlorobenzene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Hexachlorobutadiene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Hexachlorocyclopentadiene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Hexachloroethane	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Indeno(1,2,3-cd)pyrene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Isophorone	ND	10		µg/L	1	10/22/2012 9:16:11 PM
1-Methylnaphthalene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2-Methylnaphthalene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2-Methylphenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
3+4-Methylphenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
N-Nitrosodi-n-propylamine	ND	10		µg/L	1	10/22/2012 9:16:11 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB101612
Project: SWMU NO.14
Collection Date: 10/16/2012 5:20:00 PM
Lab ID: 1210860-005
Matrix: AQUEOUS
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8270C: SEMIVOLATILES						Analyst: JDC
N-Nitrosodimethylamine	ND	10		µg/L	1	10/22/2012 9:16:11 PM
N-Nitrosodiphenylamine	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Naphthalene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2-Nitroaniline	ND	10		µg/L	1	10/22/2012 9:16:11 PM
3-Nitroaniline	ND	10		µg/L	1	10/22/2012 9:16:11 PM
4-Nitroaniline	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Nitrobenzene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2-Nitrophenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
4-Nitrophenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Pentachlorophenol	ND	20		µg/L	1	10/22/2012 9:16:11 PM
Phenanthrene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Phenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Pyrene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Pyridine	ND	10		µg/L	1	10/22/2012 9:16:11 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2,4,5-Trichlorophenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
2,4,6-Trichlorophenol	ND	10		µg/L	1	10/22/2012 9:16:11 PM
Surr: 2,4,6-Tribromophenol	77.4	42.9-124		%REC	1	10/22/2012 9:16:11 PM
Surr: 2-Fluorobiphenyl	69.2	40-108		%REC	1	10/22/2012 9:16:11 PM
Surr: 2-Fluorophenol	48.2	23.6-94.8		%REC	1	10/22/2012 9:16:11 PM
Surr: 4-Terphenyl-d14	66.3	41.9-103		%REC	1	10/22/2012 9:16:11 PM
Surr: Nitrobenzene-d5	74.3	42.6-114		%REC	1	10/22/2012 9:16:11 PM
Surr: Phenol-d5	39.2	20.3-74.7		%REC	1	10/22/2012 9:16:11 PM
EPA METHOD 8260B: VOLATILES						Analyst: DJF
Benzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Toluene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Ethylbenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Naphthalene	ND	2.0		µg/L	1	10/19/2012 7:06:33 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/19/2012 7:06:33 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/19/2012 7:06:33 PM
Acetone	ND	10		µg/L	1	10/19/2012 7:06:33 PM
Bromobenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Bromoform	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Bromomethane	ND	3.0		µg/L	1	10/19/2012 7:06:33 PM
2-Butanone	ND	10		µg/L	1	10/19/2012 7:06:33 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Project: SWMU NO.14
Lab ID: 1210860-005 **Matrix:** AQUEOUS

Client Sample ID: EB101612
Collection Date: 10/16/2012 5:20:00 PM
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
Carbon disulfide	ND	10		µg/L	1	10/19/2012 7:06:33 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Chlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Chloroethane	ND	2.0		µg/L	1	10/19/2012 7:06:33 PM
Chloroform	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Chloromethane	ND	3.0		µg/L	1	10/19/2012 7:06:33 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/19/2012 7:06:33 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Dibromomethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/19/2012 7:06:33 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
2-Hexanone	ND	10		µg/L	1	10/19/2012 7:06:33 PM
Isopropylbenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/19/2012 7:06:33 PM
Methylene Chloride	ND	3.0		µg/L	1	10/19/2012 7:06:33 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/19/2012 7:06:33 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Styrene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/19/2012 7:06:33 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: EB101612
Project: SWMU NO.14
Collection Date: 10/16/2012 5:20:00 PM
Lab ID: 1210860-005
Matrix: AQUEOUS
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **DJF**
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/19/2012 7:06:33 PM
Vinyl chloride	ND	1.0		µg/L	1	10/19/2012 7:06:33 PM
Xylenes, Total	ND	1.5		µg/L	1	10/19/2012 7:06:33 PM
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	1	10/19/2012 7:06:33 PM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	1	10/19/2012 7:06:33 PM
Surr: Dibromofluoromethane	97.0	70-130		%REC	1	10/19/2012 7:06:33 PM
Surr: Toluene-d8	117	70-130		%REC	1	10/19/2012 7:06:33 PM
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/21/2012 2:18:53 PM
Surr: BFB	83.5	70-130		%REC	1	10/21/2012 2:18:53 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: SWMU NO.14
Collection Date:
Lab ID: 1210860-006
Matrix: TRIP BLANK
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: DJF
Benzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	10/21/2012 2:08:01 AM
Toluene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Ethylbenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Naphthalene	ND	2.0		µg/L	1	10/19/2012 7:37:20 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	10/19/2012 7:37:20 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	10/19/2012 7:37:20 PM
Acetone	ND	10		µg/L	1	10/19/2012 7:37:20 PM
Bromobenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Bromodichloromethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Bromoform	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Bromomethane	ND	3.0		µg/L	1	10/19/2012 7:37:20 PM
2-Butanone	ND	10		µg/L	1	10/19/2012 7:37:20 PM
Carbon disulfide	ND	10		µg/L	1	10/19/2012 7:37:20 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Chlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Chloroethane	ND	2.0		µg/L	1	10/19/2012 7:37:20 PM
Chloroform	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Chloromethane	ND	3.0		µg/L	1	10/19/2012 7:37:20 PM
2-Chlorotoluene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
4-Chlorotoluene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
cis-1,2-DCE	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/19/2012 7:37:20 PM
Dibromochloromethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Dibromomethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	10/19/2012 7:37:20 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Western Refining Southwest, Gallup
Client Sample ID: Trip Blank
Project: SWMU NO.14
Collection Date:
Lab ID: 1210860-006
Matrix: TRIP BLANK
Received Date: 10/18/2012 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
MODIFIED EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DJF**
2-Hexanone	ND	10		µg/L	1	10/19/2012 7:37:20 PM
Isopropylbenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	10/19/2012 7:37:20 PM
Methylene Chloride	ND	3.0		µg/L	1	10/19/2012 7:37:20 PM
n-Butylbenzene	ND	3.0		µg/L	1	10/19/2012 7:37:20 PM
n-Propylbenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
sec-Butylbenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Styrene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
tert-Butylbenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/19/2012 7:37:20 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
trans-1,2-DCE	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/19/2012 7:37:20 PM
Vinyl chloride	ND	1.0		µg/L	1	10/19/2012 7:37:20 PM
Xylenes, Total	ND	1.5		µg/L	1	10/19/2012 7:37:20 PM
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%REC	1	10/19/2012 7:37:20 PM
Surr: 4-Bromofluorobenzene	100	70-130		%REC	1	10/19/2012 7:37:20 PM
Surr: Dibromofluoromethane	88.3	70-130		%REC	1	10/19/2012 7:37:20 PM
Surr: Toluene-d8	113	70-130		%REC	1	10/19/2012 7:37:20 PM
Surr: BFB	97.7	70-130		%REC	1	10/21/2012 2:08:01 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits
RL	Reporting Detection Limit	S	Spike Recovery outside accepted recovery limits

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 121019048
Project Name: 1210860

Analytical Results Report

Sample Number 121019048-001 **Sampling Date** 10/17/2012 **Date/Time Received** 10/19/2012 1:14 PM
Client Sample ID 1210860-001D / SWMU 14-24 (0-0.5) **Sampling Time** 10:15 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.263	10/30/2012	CRW	EPA 335.4	
%moisture	5.4	Percent		10/30/2012	TGT	%moisture	

Sample Number 121019048-002 **Sampling Date** 10/17/2012 **Date/Time Received** 10/19/2012 1:14 PM
Client Sample ID 1210860-002D / SWMU 14-24 (1.5-2) **Sampling Time** 10:30 AM
Matrix Soil
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/Kg	0.311	10/30/2012	CRW	EPA 335.4	
%moisture	19.9	Percent		10/30/2012	TGT	%moisture	

Sample Number 121019048-003 **Sampling Date** 10/17/2012 **Date/Time Received** 10/19/2012 1:14 PM
Client Sample ID 1210860-003F / EB101712 **Sampling Time** 11:00 AM
Matrix Water
Comments

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	10/30/2012	CRW	EPA 335.4	

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	121019048
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	1210860
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	121019048-004	**Sampling Date**	10/16/2012	**Date/Time Received**	10/19/2012 1:14 PM
Client Sample ID	1210860-004F / SWMU 14-OAPIS-1GW	**Sampling Time**	9:00 AM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	0.0899	mg/L	0.01	10/29/2012	CRW	EPA 335.4	

Sample Number	121019048-005	**Sampling Date**	10/16/2012	**Date/Time Received**	10/19/2012 1:14 PM
Client Sample ID	1210860-005F / EB101612	**Sampling Time**	5:20 PM		
Matrix	Water				
Comments					

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
Cyanide	ND	mg/L	0.01	10/29/2012	CRW	EPA 335.4	

Authorized Signature

John Coddington, Lab Manager

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

This report shall not be reproduced except in full, without the written approval of the laboratory.
The results reported relate only to the samples indicated.
Soil/solid results are reported on a dry-weight basis unless otherwise noted.

QC SUMMARY REPORT

WO#: **1210860**

Hall Environmental Analysis Laboratory, Inc.

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 200.7: Metals**
Client ID: **PBW**	Batch ID: **R6448**	RunNo: **6448**
Prep Date:	Analysis Date: **10/24/2012**	SeqNo: **185486** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **LCSW**	Batch ID: **R6448**	RunNo: **6448**
Prep Date:	Analysis Date: **10/24/2012**	SeqNo: **185487** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.3	85	115			
Beryllium	0.51	0.0020	0.5000	0	103	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.9	85	115			
Chromium	0.49	0.0060	0.5000	0	98.2	85	115			
Cobalt	0.47	0.0060	0.5000	0	94.4	85	115			
Manganese	0.48	0.0020	0.5000	0	95.2	85	115			
Nickel	0.46	0.010	0.5000	0	92.9	85	115			
Silver	0.099	0.0050	0.1000	0	98.7	85	115			
Vanadium	0.52	0.050	0.5000	0	103	85	115			
Zinc	0.49	0.010	0.5000	0	98.7	85	115			

Sample ID **1210860-005EMS**	SampType: **MS**	TestCode: **EPA Method 200.7: Metals**
Client ID: **EB101612**	Batch ID: **R6448**	RunNo: **6448**
Prep Date:	Analysis Date: **10/24/2012**	SeqNo: **185584** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0.0005100	101	70	130			
Beryllium	0.54	0.0020	0.5000	0	108	70	130			
Cadmium	0.52	0.0020	0.5000	0	104	70	130			
Chromium	0.50	0.0060	0.5000	0	99.8	70	130			
Cobalt	0.49	0.0060	0.5000	0.007250	96.8	70	130			
Manganese	0.49	0.0020	0.5000	0	98.4	70	130			
Nickel	0.48	0.010	0.5000	0	95.8	70	130			
Silver	0.10	0.0050	0.1000	0	103	70	130			
Vanadium	0.53	0.050	0.5000	0	106	70	130			
Zinc	0.50	0.010	0.5000	0	101	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

t: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	1210860-005EMSD	SampType:	MSD	TestCode:	EPA Method 200.7: Metals				
Client ID:	EB101612	Batch ID:	R6448	RunNo:	6448				
Prep Date:		Analysis Date:	10/24/2012	SeqNo:	185585	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0.0005100	100	70	130	0.371	20	
Beryllium	0.54	0.0020	0.5000	0	108	70	130	0.157	20	
Cadmium	0.52	0.0020	0.5000	0	104	70	130	0.178	20	
Chromium	0.50	0.0060	0.5000	0	99.3	70	130	0.460	20	
Cobalt	0.49	0.0060	0.5000	0.007250	96.4	70	130	0.406	20	
Manganese	0.49	0.0020	0.5000	0	98.0	70	130	0.393	20	
Nickel	0.48	0.010	0.5000	0	95.4	70	130	0.513	20	
Silver	0.10	0.0050	0.1000	0	103	70	130	0.0872	20	
Vanadium	0.53	0.050	0.5000	0	106	70	130	0.179	20	
Zinc	0.50	0.010	0.5000	0	99.4	70	130	1.40	20	

Sample ID	MB-4467	SampType:	MBLK	TestCode:	EPA Method 200.7: Metals				
Client ID:	PBW	Batch ID:	4467	RunNo:	6517				
Prep Date:	10/23/2012	Analysis Date:	10/26/2012	SeqNo:	188054	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								

Sample ID	LCS-4467	SampType:	LCS	TestCode:	EPA Method 200.7: Metals				
Client ID:	LCSW	Batch ID:	4467	RunNo:	6517				
Prep Date:	10/23/2012	Analysis Date:	10/26/2012	SeqNo:	188055	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.49	0.020	0.5000	0	99.0	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Metals				
Client ID:	PBW	Batch ID:	R6577	RunNo:	6577				
Prep Date:		Analysis Date:	10/30/2012	SeqNo:	189771	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Metals				
Client ID:	LCSW	Batch ID:	R6577	RunNo:	6577				
Prep Date:		Analysis Date:	10/30/2012	SeqNo:	189772	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.52	0.020	0.5000	0	104	85	115			

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	MB-4467	SampType:	MBLK	TestCode:	EPA Method 200.7: Metals				
Client ID:	PBW	Batch ID:	4467	RunNo:	6448				
Prep Date:	10/23/2012	Analysis Date:	10/24/2012	SeqNo:	191046	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Silver	ND	0.0050								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID	LCS-4467	SampType:	LCS	TestCode:	EPA Method 200.7: Metals				
Client ID:	LCSW	Batch ID:	4467	RunNo:	6448				
Prep Date:	10/23/2012	Analysis Date:	10/24/2012	SeqNo:	191048	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.3	85	115			
Beryllium	0.51	0.0020	0.5000	0	103	85	115			
Cadmium	0.49	0.0020	0.5000	0	97.7	85	115			
Chromium	0.48	0.0060	0.5000	0	96.3	85	115			
Cobalt	0.46	0.0060	0.5000	0	92.3	85	115			
Manganese	0.47	0.0020	0.5000	0	93.4	85	115			
Nickel	0.46	0.010	0.5000	0	91.2	85	115			
Silver	0.087	0.0050	0.1000	0	86.5	85	115			
Vanadium	0.51	0.050	0.5000	0	101	85	115			
Zinc	0.48	0.010	0.5000	0	95.6	85	115			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 200.7: Metals				
Client ID:	PBW	Batch ID:	R6689	RunNo:	6689				
Prep Date:		Analysis Date:	11/5/2012	SeqNo:	193297	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 200.7: Metals				
Client ID:	LCSW	Batch ID:	R6689	RunNo:	6689				
Prep Date:		Analysis Date:	11/5/2012	SeqNo:	193298	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.49	0.020	0.5000	0	98.0	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	1210860-005EMS	SampType:	MS		TestCode:	EPA Method 200.7: Metals				
Client ID:	EB101612	Batch ID:	R6689		RunNo:	6689				
Prep Date:		Analysis Date:	11/5/2012		SeqNo:	193607	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.50	0.020	0.5000	0	100	70	130			

Sample ID	1210860-005EMSD	SampType:	MSD		TestCode:	EPA Method 200.7: Metals				
Client ID:	EB101612	Batch ID:	R6689		RunNo:	6689				
Prep Date:		Analysis Date:	11/5/2012		SeqNo:	193608	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.50	0.020	0.5000	0	100	70	130	0.290	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB-4467**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **4467**	RunNo: **6466**
Prep Date: **10/23/2012**	Analysis Date: **10/24/2012**	SeqNo: **185968** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0025								
Arsenic	ND	0.0025								
Lead	ND	0.0025								
Selenium	ND	0.0025								

Sample ID **1209C98-001AMS**	SampType: **MS**	TestCode: **EPA 200.8: Metals**
Client ID: **BatchQC**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **186650** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.031	0.0010	0.02500	0.005774	102	70	130			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **186664** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.026	0.0010	0.02500	0	103	85	115			
Arsenic	0.026	0.0010	0.02500	0	104	85	115			
Lead	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**
Client ID: **LCSW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **186665** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.026	0.0010	0.02500	0	104	85	115			
Arsenic	0.026	0.0010	0.02500	0	105	85	115			
Lead	0.027	0.0010	0.02500	0	106	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**
Client ID: **PBW**	Batch ID: **R6483**	RunNo: **6483**
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **186667** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

ıt: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	MB	SampType:	MBLK	TestCode:	EPA 200.8: Metals					
Client ID:	PBW	Batch ID:	R6483	RunNo:	6483					
Prep Date:		Analysis Date:	10/25/2012	SeqNo:	186668	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID	1210516-002BMS	SampType:	MS	TestCode:	EPA 200.8: Metals					
Client ID:	BatchQC	Batch ID:	R6483	RunNo:	6483					
Prep Date:		Analysis Date:	10/25/2012	SeqNo:	187056	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.026	0.0010	0.02500	0	102	70	130			
Lead	0.029	0.0010	0.02500	0.002703	104	70	130			
Selenium	0.026	0.0010	0.02500	0	102	70	130			

Sample ID	1210544-001CMS	SampType:	MS	TestCode:	EPA 200.8: Metals					
Client ID:	BatchQC	Batch ID:	R6483	RunNo:	6483					
Prep Date:		Analysis Date:	10/25/2012	SeqNo:	187059	Units:	mg/L			

yte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	98.2	70	130			
Arsenic	0.027	0.0010	0.02500	0.001693	101	70	130			
Selenium	0.026	0.0010	0.02500	0.001046	100	70	130			

Sample ID	1210724-001AMS	SampType:	MS	TestCode:	EPA 200.8: Metals					
Client ID:	BatchQC	Batch ID:	R6483	RunNo:	6483					
Prep Date:		Analysis Date:	10/25/2012	SeqNo:	187071	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.048	0.0010	0.02500	0.02319	99.5	70	130			

Sample ID	1210724-010AMS	SampType:	MS	TestCode:	EPA 200.8: Metals					
Client ID:	BatchQC	Batch ID:	R6483	RunNo:	6483					
Prep Date:		Analysis Date:	10/25/2012	SeqNo:	187081	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.029	0.0010	0.02500	0.004033	101	70	130			

Sample ID	LCS	SampType:	LCS	TestCode:	EPA 200.8: Metals					
Client ID:	LCSW	Batch ID:	R6483	RunNo:	6483					
Prep Date:		Analysis Date:	10/25/2012	SeqNo:	187100	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

ʼifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**							
Client ID: **LCSW**	Batch ID: **R6483**	RunNo: **6483**							
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187100**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.024	0.0010	0.02500	0	96.9	85	115			
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Lead	0.026	0.0010	0.02500	0	104	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA 200.8: Metals**							
Client ID: **LCSW**	Batch ID: **R6483**	RunNo: **6483**							
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187101**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.024	0.0010	0.02500	0	96.2	85	115			
Arsenic	0.025	0.0010	0.02500	0	99.5	85	115			
Lead	0.026	0.0010	0.02500	0	105	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**							
Client ID: **PBW**	Batch ID: **R6483**	RunNo: **6483**							
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187102**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA 200.8: Metals**							
Client ID: **PBW**	Batch ID: **R6483**	RunNo: **6483**							
Prep Date:	Analysis Date: **10/25/2012**	SeqNo: **187103**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.0010								
Selenium	ND	0.0010								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-4503	SampType:	MBLK		TestCode:	EPA Method 245.1: Mercury				
Client ID:	PBW	Batch ID:	4503		RunNo:	6470				
Prep Date:	10/24/2012	Analysis Date:	10/24/2012		SeqNo:	186274	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-4503	SampType:	LCS		TestCode:	EPA Method 245.1: Mercury				
Client ID:	LCSW	Batch ID:	4503		RunNo:	6470				
Prep Date:	10/24/2012	Analysis Date:	10/24/2012		SeqNo:	186276	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.2	80	120			

Sample ID	1210675-003BMS	SampType:	ms		TestCode:	EPA Method 245.1: Mercury				
Client ID:	BatchQC	Batch ID:	4503		RunNo:	6470				
Prep Date:	10/24/2012	Analysis Date:	10/24/2012		SeqNo:	186299	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0042	0.00020	0.005000	0	83.0	75	125			

Sample ID	1210675-003BMSD	SampType:	msd		TestCode:	EPA Method 245.1: Mercury				
Client ID:	BatchQC	Batch ID:	4503		RunNo:	6470				
Prep Date:	10/24/2012	Analysis Date:	10/24/2012		SeqNo:	186300	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0040	0.00020	0.005000	0	80.1	75	125	3.62	20	

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R6352**	RunNo: **6352**
Prep Date:	Analysis Date: **10/18/2012**	SeqNo: **182755** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSW**	Batch ID: **R6352**	RunNo: **6352**
Prep Date:	Analysis Date: **10/18/2012**	SeqNo: **182756** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.3	90	110			
Chloride	5.1	0.50	5.000	0	102	90	110			
Sulfate	10	0.50	10.00	0	100	90	110			

Sample ID **1210862-002BMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6352**	RunNo: **6352**
Prep Date:	Analysis Date: **10/18/2012**	SeqNo: **182769** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.78	0.10	0.5000	0	157	76.6	110			S
Chloride	8.3	0.50	5.000	4.950	66.3	87.8	111			S
Sulfate	71	0.50	10.00	52.29	185	84.6	122			SE

Sample ID **1210862-002BMSD**	SampType: **MSD**	TestCode: **EPA Method 300.0: Anions**
Client ID: **BatchQC**	Batch ID: **R6352**	RunNo: **6352**
Prep Date:	Analysis Date: **10/18/2012**	SeqNo: **182770** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.78	0.10	0.5000	0	155	76.6	110	0.813	20	S
Chloride	8.2	0.50	5.000	4.950	65.9	87.8	111	0.230	20	S
Sulfate	71	0.50	10.00	52.29	184	84.6	122	0.106	20	SE

Sample ID **1210860-003CMS**	SampType: **MS**	TestCode: **EPA Method 300.0: Anions**
Client ID: **EB101712**	Batch ID: **R6352**	RunNo: **6352**
Prep Date:	Analysis Date: **10/18/2012**	SeqNo: **182775** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.5	76.6	110			
Chloride	4.9	0.50	5.000	0	98.4	87.8	111			
Sulfate	9.6	0.50	10.00	0	96.3	84.6	122			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	1210860-003CMSD	SampType:	MSD	TestCode:	EPA Method 300.0: Anions				
Client ID:	EB101712	Batch ID:	R6352	RunNo:	6352				
Prep Date:		Analysis Date:	10/18/2012	SeqNo:	182776	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	98.1	76.6	110	0.572	20	
Chloride	4.9	0.50	5.000	0	98.3	87.8	111	0.126	20	
Sulfate	9.7	0.50	10.00	0	97.3	84.6	122	1.05	20	

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions				
Client ID:	PBW	Batch ID:	R6364	RunNo:	6364				
Prep Date:		Analysis Date:	10/19/2012	SeqNo:	183032	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSW	Batch ID:	R6364	RunNo:	6364				
Prep Date:		Analysis Date:	10/19/2012	SeqNo:	183033	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	5.1	0.50	5.000	0	102	90	110			

Qualifiers:

- E Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	MB-4397	SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	4397		RunNo:	6325					
Prep Date:	10/18/2012	Analysis Date:	10/18/2012		SeqNo:	182283	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	10		10.00		103	77.6	140				

Sample ID	LCS-4397	SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	4397		RunNo:	6325					
Prep Date:	10/18/2012	Analysis Date:	10/18/2012		SeqNo:	182284	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Diesel Range Organics (DRO)	56	10	50.00	0	111	52.6	130				
Surr: DNOP	4.3		5.000		86.9	77.6	140				

Sample ID	MB-4404	SampType:	MBLK		TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	PBS	Batch ID:	4404		RunNo:	6356					
Prep Date:	10/18/2012	Analysis Date:	10/19/2012		SeqNo:	182984	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	9.6		10.00		95.6	77.6	140				

Sample ID	LCS-4404	SampType:	LCS		TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	4404		RunNo:	6356					
Prep Date:	10/18/2012	Analysis Date:	10/19/2012		SeqNo:	182985	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.5		5.000		90.3	77.6	140				

Sample ID	1210819-001AMS	SampType:	MS		TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	4404		RunNo:	6356					
Prep Date:	10/18/2012	Analysis Date:	10/19/2012		SeqNo:	183001	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.7		5.899		79.7	77.6	140				

Sample ID	1210819-001AMSD	SampType:	MSD		TestCode:	EPA Method 8015B: Diesel Range Organics					
Client ID:	BatchQC	Batch ID:	4404		RunNo:	6356					
Prep Date:	10/18/2012	Analysis Date:	10/19/2012		SeqNo:	183002	Units:	%REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: DNOP	4.9		6.148		79.2	77.6	140	0	0		

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **MB-4430**	SampType: **MBLK**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **PBW**	Batch ID: **4430**	RunNo: **6372**
Prep Date: **10/19/2012**	Analysis Date: **10/20/2012**	SeqNo: **183215** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	0.98		1.000		98.2	79.5	166			

Sample ID **LCS-4430**	SampType: **LCS**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSW**	Batch ID: **4430**	RunNo: **6372**
Prep Date: **10/19/2012**	Analysis Date: **10/20/2012**	SeqNo: **183216** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.5	1.0	5.000	0	90.1	74	157			
Surr: DNOP	0.60		0.5000		121	79.5	166			

Sample ID **LCSD-4430**	SampType: **LCSD**	TestCode: **EPA Method 8015B: Diesel Range**
Client ID: **LCSS02**	Batch ID: **4430**	RunNo: **6372**
Prep Date: **10/19/2012**	Analysis Date: **10/20/2012**	SeqNo: **183217** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.6	1.0	5.000	0	91.2	74	157	1.18	23	
Surr: DNOP	0.61		0.5000		122	79.5	166	0	0	

Qualifiers:

- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	MB-4510	SampType:	MBLK		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	PBS	Batch ID:	4510		RunNo:	6518				
Prep Date:	10/24/2012	Analysis Date:	10/27/2012		SeqNo:	188108	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	970		1000		96.6	84	116			

Sample ID	LCS-4510	SampType:	LCS		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	LCSS	Batch ID:	4510		RunNo:	6518				
Prep Date:	10/24/2012	Analysis Date:	10/27/2012		SeqNo:	188109	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	102	74	117			
Surr: BFB	1000		1000		103	84	116			

Sample ID	1210A72-002AMS	SampType:	MS		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	BatchQC	Batch ID:	4510		RunNo:	6518				
Prep Date:	10/24/2012	Analysis Date:	10/27/2012		SeqNo:	188121	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.65	2.267	96.2	70	130			
Surr: BFB	1100		986.2		109	84	116			

Sample ID	1210A72-002AMSD	SampType:	MSD		TestCode:	EPA Method 8015B: Gasoline Range				
Client ID:	BatchQC	Batch ID:	4510		RunNo:	6518				
Prep Date:	10/24/2012	Analysis Date:	10/27/2012		SeqNo:	188122	Units:	mg/Kg		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.61	2.267	96.0	70	130	0.425	22.1	
Surr: BFB	1100		984.3		107	84	116	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-4419**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4419**	RunNo: **6365**
Prep Date: **10/19/2012**	Analysis Date: **10/19/2012**	SeqNo: **183060** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.00100								
Toluene	ND	0.00100								
Ethylbenzene	ND	0.00100								
Xylenes, Total	ND	0.00200								
Methyl tert-butyl ether (MTBE)	ND	0.00100								
1,2,4-Trimethylbenzene	ND	0.00100								
1,3,5-Trimethylbenzene	ND	0.00100								
1,2-Dichloroethane (EDC)	ND	0.00100								
1,2-Dibromoethane (EDB)	ND	0.00100								
Naphthalene	ND	0.00200								
1-Methylnaphthalene	ND	0.00400								
2-Methylnaphthalene	ND	0.00400								
Acetone	ND	0.0100								
Bromobenzene	ND	0.00100								
Bromodichloromethane	ND	0.00100								
Bromoform	ND	0.00100								
Bromomethane	ND	0.00100								
ıone	ND	0.0100								
ɔn tetrachloride	ND	0.00100								
Chlorobenzene	ND	0.00100								
Chloroethane	ND	0.00100								
Chloroform	ND	0.00100								
Chloromethane	ND	0.00100								
2-Chlorotoluene	ND	0.00100								
Carbon disulfide	ND	0.0100								
4-Chlorotoluene	ND	0.00100								
cis-1,2-DCE	ND	0.00100								
cis-1,3-Dichloropropene	ND	0.00100								
1,2-Dibromo-3-chloropropane	ND	0.00100								
Dibromochloromethane	ND	0.00100								
Dibromomethane	ND	0.00100								
1,2-Dichlorobenzene	ND	0.00100								
1,3-Dichlorobenzene	ND	0.00100								
1,4-Dichlorobenzene	ND	0.00100								
Dichlorodifluoromethane	ND	0.00100								
1,1-Dichloroethane	ND	0.00100								
1,1-Dichloroethene	ND	0.00100								
1,2-Dichloropropane	ND	0.00100								
1,3-Dichloropropane	ND	0.00100								
2,2-Dichloropropane	ND	0.00100								
1,1-Dichloropropene	ND	0.00100								

fiers:

- Value exceeds Maximum Contaminant Level.
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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-4419**	SampType: **MBLK**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **PBS**	Batch ID: **4419**	RunNo: **6365**
Prep Date: **10/19/2012**	Analysis Date: **10/19/2012**	SeqNo: **183060** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	0.00100								
Isopropylbenzene	ND	0.00100								
4-Isopropyltoluene	ND	0.00100								
Methylene chloride	0.00320	0.00300								
n-Butylbenzene	ND	0.00100								
2-Hexanone	ND	0.0100								
n-Propylbenzene	ND	0.00100								
sec-Butylbenzene	ND	0.00100								
Styrene	ND	0.00100								
4-Methyl-2-pentanone	ND	0.0100								
tert-Butylbenzene	ND	0.00100								
1,1,1,2-Tetrachloroethane	ND	0.00100								
1,1,2,2-Tetrachloroethane	ND	0.00100								
Tetrachloroethene (PCE)	ND	0.00100								
trans-1,2-DCE	ND	0.00100								
trans-1,3-Dichloropropene	ND	0.00100								
1,2,3-Trichlorobenzene	ND	0.00100								
1,2,4-Trichlorobenzene	ND	0.00100								
1,1,1-Trichloroethane	ND	0.00100								
1,1,2-Trichloroethane	ND	0.00100								
Trichloroethene (TCE)	ND	0.00100								
Trichlorofluoromethane	ND	0.00100								
1,2,3-Trichloropropane	ND	0.00100								
Vinyl chloride	ND	0.00100								
Surr: 1,2-Dichloroethane-d4	43.7		50.00		87.4	70	130			
Surr: 4-Bromofluorobenzene	43.0		50.00		85.9	70	130			
Surr: Dibromofluoromethane	50.0		50.00		100	70	130			
Surr: Toluene-d8	51.0		50.00		102	70	130			

Sample ID **lcs-4419**	SampType: **LCS**	TestCode: **Method 8260B/5035LOW: VOLATILES**
Client ID: **LCSS**	Batch ID: **4419**	RunNo: **6365**
Prep Date: **10/19/2012**	Analysis Date: **10/19/2012**	SeqNo: **183062** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	11.7	1.00	12.50	0	93.9	60	140			
Toluene	10.2	1.00	12.50	0	82.0	60	140			
Chlorobenzene	11.9	1.00	12.50	0	94.9	60	140			
1,1-Dichloroethene	14.5	1.00	12.50	0	116	60	140			
Trichloroethene (TCE)	9.39	1.00	12.50	0	75.1	60	140			
Surr: 1,2-Dichloroethane-d4	47.4		50.00		94.9	70	130			
Surr: 4-Bromofluorobenzene	41.6		50.00		83.2	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID	**lcs-4419**	SampType: **LCS**		TestCode: **Method 8260B/5035LOW: VOLATILES**					
Client ID:	**LCSS**	Batch ID: **4419**		RunNo: **6365**					
Prep Date:	**10/19/2012**	Analysis Date: **10/19/2012**		SeqNo: **183062**		Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	46.8		50.00		93.6	70	130			
Surr: Toluene-d8	46.1		50.00		92.3	70	130			

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**	
Client ID: **PBW**	Batch ID: **R6386**	RunNo: **6386**	
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **183508**	Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **5ml-rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R6386**	RunNo: **6386**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **183508** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
richloroethane	ND	1.0								
richloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.5	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	9.1		10.00		91.2	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R6386**	RunNo: **6386**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **183534** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	93.6	70	130			
Toluene	18	1.0	20.00	0	92.4	80	120			
Chlorobenzene	19	1.0	20.00	0	95.0	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.1	73.7	122			
Trichloroethene (TCE)	17	1.0	20.00	0	83.8	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.4	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		115	70	130			

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

WO#: **1210860**

Hall Environmental Analysis Laboratory, Inc.

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **100ng lcs** SampType: **LCS** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW** Batch ID: **R6386** RunNo: **6386**
Prep Date: Analysis Date: **10/19/2012** SeqNo: **183534** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	8.1		10.00		81.3	70	130			
Surr: Toluene-d8	11		10.00		108	70	130			

Sample ID **1210860-003a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **EB101712** Batch ID: **R6386** RunNo: **6386**
Prep Date: Analysis Date: **10/19/2012** SeqNo: **183536** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	97.2	66.8	128			
Toluene	19	1.0	20.00	0	95.7	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	104	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0.4600	82.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.3	70	130			
Surr: 4-Bromofluorobenzene	8.9		10.00		88.5	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.2	70	130			
Surr: Toluene-d8	11		10.00		109	70	130			

Sample ID **1210860-003a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **EB101712** Batch ID: **R6386** RunNo: **6386**
Prep Date: Analysis Date: **10/19/2012** SeqNo: **183559** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.6	66.8	128	4.84	16.7	
Toluene	18	1.0	20.00	0	91.3	70	130	4.75	18.7	
Chlorobenzene	19	1.0	20.00	0	95.3	70	130	5.49	19.5	
1,1-Dichloroethene	19	1.0	20.00	0	93.4	70	130	10.5	16.7	
Trichloroethene (TCE)	16	1.0	20.00	0.4600	77.0	70	130	6.12	17.5	
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.8	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130	0	0	
Surr: Dibromofluoromethane	8.4		10.00		84.4	70	130	0	0	
Surr: Toluene-d8	11		10.00		106	70	130	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **lcs-4422**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185414** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.670	0	74.7	49.7	98.1			
4-Chloro-3-methylphenol	2.6	0.50	3.330	0	76.9	43.8	89.1			
2-Chlorophenol	2.5	0.20	3.330	0	75.3	41.1	96.9			
1,4-Dichlorobenzene	1.3	0.20	1.670	0	78.0	41	97.4			
2,4-Dinitrotoluene	1.3	0.50	1.670	0	79.3	44.4	104			
N-Nitrosodi-n-propylamine	1.4	0.20	1.670	0	83.1	39.1	86.9			
4-Nitrophenol	2.4	0.25	3.330	0	73.5	44.2	107			
Pentachlorophenol	2.1	0.40	3.330	0	61.6	36.2	80			
Phenol	2.4	0.20	3.330	0	72.5	42.7	92.7			
Pyrene	1.3	0.20	1.670	0	77.3	34.7	98.8			
1,2,4-Trichlorobenzene	1.5	0.20	1.670	0	91.6	37.8	98.3			
Surr: 2,4,6-Tribromophenol	3.4		3.330		103	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.670		95.5	20	131			
Surr: 2-Fluorophenol	2.8		3.330		83.7	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.670		79.6	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.670		99.9	25.6	137			
Surr: Phenol-d5	3.0		3.330		89.0	20.3	132			

Sample ID **mb-4422**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.20								
Acenaphthylene	ND	0.20								
Aniline	ND	0.20								
Anthracene	ND	0.20								
Azobenzene	ND	0.20								
Benz(a)anthracene	ND	0.20								
Benzo(a)pyrene	ND	0.20								
Benzo(b)fluoranthene	ND	0.20								
Benzo(g,h,i)perylene	ND	0.20								
Benzo(k)fluoranthene	ND	0.20								
Benzoic acid	ND	0.50								
Benzyl alcohol	ND	0.20								
Bis(2-chloroethoxy)methane	ND	0.20								
Bis(2-chloroethyl)ether	ND	0.20								
Bis(2-chloroisopropyl)ether	ND	0.20								
Bis(2-ethylhexyl)phthalate	ND	0.50								
4-Bromophenyl phenyl ether	ND	0.20								
Butyl benzyl phthalate	ND	0.20								

Qualifiers:

- Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **mb-4422**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **PBS**	Batch ID: **4422**	RunNo: **6445**	
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185416**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Carbazole	ND	0.20								
4-Chloro-3-methylphenol	ND	0.50								
4-Chloroaniline	ND	0.50								
2-Chloronaphthalene	ND	0.25								
2-Chlorophenol	ND	0.20								
4-Chlorophenyl phenyl ether	ND	0.20								
Chrysene	ND	0.20								
Di-n-butyl phthalate	ND	0.50								
Di-n-octyl phthalate	ND	0.40								
Dibenz(a,h)anthracene	ND	0.20								
Dibenzofuran	ND	0.20								
1,2-Dichlorobenzene	ND	0.20								
1,3-Dichlorobenzene	ND	0.20								
1,4-Dichlorobenzene	ND	0.20								
3,3'-Dichlorobenzidine	ND	0.25								
Diethyl phthalate	ND	0.20								
Dimethyl phthalate	ND	0.20								
2,4-Dichlorophenol	ND	0.40								
2,4-Dimethylphenol	ND	0.30								
4,6-Dinitro-2-methylphenol	ND	0.50								
2,4-Dinitrophenol	ND	0.40								
2,4-Dinitrotoluene	ND	0.50								
2,6-Dinitrotoluene	ND	0.50								
Fluoranthene	ND	0.20								
Fluorene	ND	0.20								
Hexachlorobenzene	ND	0.20								
Hexachlorobutadiene	ND	0.20								
Hexachlorocyclopentadiene	ND	0.20								
Hexachloroethane	ND	0.20								
Indeno(1,2,3-cd)pyrene	ND	0.20								
Isophorone	ND	0.50								
1-Methylnaphthalene	ND	0.20								
2-Methylnaphthalene	ND	0.20								
2-Methylphenol	ND	0.50								
3+4-Methylphenol	ND	0.20								
N-Nitrosodi-n-propylamine	ND	0.20								
N-Nitrosodiphenylamine	ND	0.20								
Naphthalene	ND	0.20								
2-Nitroaniline	ND	0.20								
3-Nitroaniline	ND	0.20								
4-Nitroaniline	ND	0.40								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **mb-4422**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBS**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrobenzene	ND	0.50								
2-Nitrophenol	ND	0.20								
4-Nitrophenol	ND	0.25								
Pentachlorophenol	ND	0.40								
Phenanthrene	ND	0.20								
Phenol	ND	0.20								
Pyrene	ND	0.20								
Pyridine	ND	0.50								
1,2,4-Trichlorobenzene	ND	0.20								
2,4,5-Trichlorophenol	ND	0.20								
2,4,6-Trichlorophenol	ND	0.20								
Surr: 2,4,6-Tribromophenol	3.9		3.330		117	21.3	145			
Surr: 2-Fluorobiphenyl	1.6		1.670		98.4	20	131			
Surr: 2-Fluorophenol	3.1		3.330		91.6	11.9	130			
Surr: 4-Terphenyl-d14	1.5		1.670		91.7	25.1	149			
Surr: Nitrobenzene-d5	1.8		1.670		109	25.6	137			
Surr: Phenol-d5	3.2		3.330		96.3	20.3	132			

Sample ID **1210858-004Cms**	SampType: **MS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **BatchQC**	Batch ID: **4422**	RunNo: **6445**
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185433** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.659	0	69.3	25.6	142			
4-Chloro-3-methylphenol	2.2	0.50	3.309	0	67.6	63.7	100			
2-Chlorophenol	2.0	0.20	3.309	0	61.7	22.2	126			
1,4-Dichlorobenzene	1.1	0.20	1.659	0	63.6	12.4	115			
2,4-Dinitrotoluene	1.2	0.50	1.659	0	74.6	14.9	142			
N-Nitrosodi-n-propylamine	1.1	0.20	1.659	0	65.9	13.9	136			
4-Nitrophenol	2.2	0.25	3.309	0.09121	63.6	36.7	130			
Pentachlorophenol	1.9	0.40	3.309	0	56.5	15.8	113			
Phenol	2.1	0.20	3.309	0	63.9	25.1	124			
Pyrene	1.1	0.20	1.659	0	68.6	35.8	124			
1,2,4-Trichlorobenzene	1.3	0.20	1.659	0	78.0	30	113			
Surr: 2,4,6-Tribromophenol	3.0		3.309		90.3	21.3	145			
Surr: 2-Fluorobiphenyl	1.5		1.659		90.0	20	131			
Surr: 2-Fluorophenol	2.5		3.309		74.2	11.9	130			
Surr: 4-Terphenyl-d14	1.3		1.659		80.0	25.1	149			
Surr: Nitrobenzene-d5	1.7		1.659		101	25.6	137			
Surr: Phenol-d5	2.8		3.309		84.0	20.3	132			

Qualifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1210858-004Cmsd**	SampType: **MSD**	TestCode: **EPA Method 8270C: Semivolatiles**	
Client ID: **BatchQC**	Batch ID: **4422**	RunNo: **6445**	
Prep Date: **10/19/2012**	Analysis Date: **10/23/2012**	SeqNo: **185434**	Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	1.2	0.20	1.681	0	71.3	25.6	142	4.05	22	
4-Chloro-3-methylphenol	2.3	0.50	3.351	0	69.5	63.7	100	4.10	27.3	
2-Chlorophenol	2.3	0.20	3.351	0	68.2	22.2	126	11.4	26.3	
1,4-Dichlorobenzene	1.1	0.20	1.681	0	63.4	12.4	115	1.02	27.4	
2,4-Dinitrotoluene	1.3	0.50	1.681	0	77.0	14.9	142	4.43	27.4	
N-Nitrosodi-n-propylamine	1.3	0.20	1.681	0	75.9	13.9	136	15.3	22.6	
4-Nitrophenol	2.3	0.25	3.351	0.09121	64.9	36.7	130	3.21	20	
Pentachlorophenol	2.0	0.40	3.351	0	59.9	15.8	113	7.18	27.1	
Phenol	2.2	0.20	3.351	0	66.5	25.1	124	5.18	32.2	
Pyrene	1.2	0.20	1.681	0	70.8	35.8	124	4.36	29.5	
1,2,4-Trichlorobenzene	1.4	0.20	1.681	0	80.5	30	113	4.34	27.8	
Surr: 2,4,6-Tribromophenol	3.1		3.351		93.6	21.3	145	0	0	
Surr: 2-Fluorobiphenyl	1.5		1.681		91.0	20	131	0	0	
Surr: 2-Fluorophenol	2.5		3.351		75.3	11.9	130	0	0	
Surr: 4-Terphenyl-d14	1.4		1.681		81.4	25.1	149	0	0	
Surr: Nitrobenzene-d5	1.6		1.681		96.9	25.6	137	0	0	
Surr: Phenol-d5	2.9		3.351		85.9	20.3	132	0	0	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup
Project: SWMU NO.14

Sample ID **mb-4411**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4411**	RunNo: **6416**
Prep Date: **10/19/2012**	Analysis Date: **10/22/2012**	SeqNo: **184532** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	ND	10								
Acenaphthylene	ND	10								
Aniline	ND	10								
Anthracene	ND	10								
Azobenzene	ND	10								
Benz(a)anthracene	ND	10								
Benzo(a)pyrene	ND	10								
Benzo(b)fluoranthene	ND	10								
Benzo(g,h,i)perylene	ND	10								
Benzo(k)fluoranthene	ND	10								
Benzoic acid	ND	20								
Benzyl alcohol	ND	10								
Bis(2-chloroethoxy)methane	ND	10								
Bis(2-chloroethyl)ether	ND	10								
Bis(2-chloroisopropyl)ether	ND	10								
Bis(2-ethylhexyl)phthalate	ND	10								
4-Bromophenyl phenyl ether	ND	10								
enzyl phthalate	ND	10								
azole	ND	10								
4-Chloro-3-methylphenol	ND	10								
4-Chloroaniline	ND	10								
2-Chloronaphthalene	ND	10								
2-Chlorophenol	ND	10								
4-Chlorophenyl phenyl ether	ND	10								
Chrysene	ND	10								
Di-n-butyl phthalate	ND	10								
Di-n-octyl phthalate	ND	20								
Dibenz(a,h)anthracene	ND	10								
Dibenzofuran	ND	10								
1,2-Dichlorobenzene	ND	10								
1,3-Dichlorobenzene	ND	10								
1,4-Dichlorobenzene	ND	10								
3,3'-Dichlorobenzidine	ND	10								
Diethyl phthalate	ND	10								
Dimethyl phthalate	ND	10								
2,4-Dichlorophenol	ND	20								
2,4-Dimethylphenol	ND	10								
4,6-Dinitro-2-methylphenol	ND	20								
2,4-Dinitrophenol	ND	20								
2,4-Dinitrotoluene	ND	10								
2,6-Dinitrotoluene	ND	10								

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **mb-4411**	SampType: **MBLK**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **PBW**	Batch ID: **4411**	RunNo: **6416**
Prep Date: **10/19/2012**	Analysis Date: **10/22/2012**	SeqNo: **184532** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoranthene	ND	10								
Fluorene	ND	10								
Hexachlorobenzene	ND	10								
Hexachlorobutadiene	ND	10								
Hexachlorocyclopentadiene	ND	10								
Hexachloroethane	ND	10								
Indeno(1,2,3-cd)pyrene	ND	10								
Isophorone	ND	10								
1-Methylnaphthalene	ND	10								
2-Methylnaphthalene	ND	10								
2-Methylphenol	ND	10								
3+4-Methylphenol	ND	10								
N-Nitrosodi-n-propylamine	ND	10								
N-Nitrosodimethylamine	ND	10								
N-Nitrosodiphenylamine	ND	10								
Naphthalene	ND	10								
2-Nitroaniline	ND	10								
3-Nitroaniline	ND	10								
4-Nitroaniline	ND	10								
Nitrobenzene	ND	10								
2-Nitrophenol	ND	10								
4-Nitrophenol	ND	10								
Pentachlorophenol	ND	20								
Phenanthrene	ND	10								
Phenol	ND	10								
Pyrene	ND	10								
Pyridine	ND	10								
1,2,4-Trichlorobenzene	ND	10								
2,4,5-Trichlorophenol	ND	10								
2,4,6-Trichlorophenol	ND	10								
Surr: 2,4,6-Tribromophenol	180		200.0		89.0	42.9	124			
Surr: 2-Fluorobiphenyl	74		100.0		73.7	40	108			
Surr: 2-Fluorophenol	130		200.0		63.3	23.6	94.8			
Surr: 4-Terphenyl-d14	75		100.0		74.5	41.9	103			
Surr: Nitrobenzene-d5	91		100.0		90.8	42.6	114			
Surr: Phenol-d5	100		200.0		49.9	20.3	74.7			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **lcs-4411**	SampType: **LCS**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSW**	Batch ID: **4411**	RunNo: **6416**
Prep Date: **10/19/2012**	Analysis Date: **10/22/2012**	SeqNo: **184533** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	69	10	100.0	0	69.3	43.3	92			
4-Chloro-3-methylphenol	150	10	200.0	0	72.7	46.3	108			
2-Chlorophenol	130	10	200.0	0	65.3	38	99.3			
1,4-Dichlorobenzene	62	10	100.0	0	61.6	30.8	80.6			
2,4-Dinitrotoluene	73	10	100.0	0	73.1	46.1	117			
N-Nitrosodi-n-propylamine	73	10	100.0	0	73.0	39.3	110			
4-Nitrophenol	80	10	200.0	0	39.8	29.8	67			
Pentachlorophenol	110	20	200.0	0	55.3	32.2	95.7			
Phenol	78	10	200.0	0	39.2	27	64.8			
Pyrene	72	10	100.0	0	71.5	44.7	97.3			
1,2,4-Trichlorobenzene	73	10	100.0	0	72.7	36.6	86.7			
Surr: 2,4,6-Tribromophenol	170		200.0		87.4	42.9	124			
Surr: 2-Fluorobiphenyl	81		100.0		81.3	40	108			
Surr: 2-Fluorophenol	120		200.0		60.0	23.6	94.8			
Surr: 4-Terphenyl-d14	74		100.0		74.1	41.9	103			
Surr: Nitrobenzene-d5	85		100.0		84.8	42.6	114			
Surr: Phenol-d5	100		200.0		50.3	20.3	74.7			

.ple ID **lcsd-4411**	SampType: **LCSD**	TestCode: **EPA Method 8270C: Semivolatiles**
Client ID: **LCSS02**	Batch ID: **4411**	RunNo: **6416**
Prep Date: **10/19/2012**	Analysis Date: **10/22/2012**	SeqNo: **184535** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Acenaphthene	63	10	100.0	0	62.5	43.3	92	10.3	25	
4-Chloro-3-methylphenol	140	10	200.0	0	67.6	46.3	108	7.30	32.7	
2-Chlorophenol	120	10	200.0	0	59.8	38	99.3	8.77	20	
1,4-Dichlorobenzene	54	10	100.0	0	53.8	30.8	80.6	13.6	20	
2,4-Dinitrotoluene	70	10	100.0	0	70.2	46.1	117	4.16	29.9	
N-Nitrosodi-n-propylamine	65	10	100.0	0	64.8	39.3	110	11.9	23.1	
4-Nitrophenol	75	10	200.0	0	37.7	29.8	67	5.34	40.5	
Pentachlorophenol	110	20	200.0	0	54.1	32.2	95.7	2.07	37.3	
Phenol	68	10	200.0	0	34.1	27	64.8	14.1	20	
Pyrene	68	10	100.0	0	67.9	44.7	97.3	5.13	26.5	
1,2,4-Trichlorobenzene	67	10	100.0	0	66.7	36.6	86.7	8.58	27.2	
Surr: 2,4,6-Tribromophenol	170		200.0		87.5	42.9	124	0	0	
Surr: 2-Fluorobiphenyl	72		100.0		71.5	40	108	0	0	
Surr: 2-Fluorophenol	110		200.0		53.9	23.6	94.8	0	0	
Surr: 4-Terphenyl-d14	72		100.0		72.5	41.9	103	0	0	
Surr: Nitrobenzene-d5	77		100.0		76.5	42.6	114	0	0	
Surr: Phenol-d5	90		200.0		45.1	20.3	74.7	0	0	

ʻfiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	MB-4629	SampType:	MBLK		TestCode:	EPA Method 7471: Mercury				
Client ID:	PBS	Batch ID:	4629		RunNo:	6634				
Prep Date:	11/1/2012	Analysis Date:	11/1/2012		SeqNo:	191517	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.033								

Sample ID	LCS-4629	SampType:	LCS		TestCode:	EPA Method 7471: Mercury				
Client ID:	LCSS	Batch ID:	4629		RunNo:	6634				
Prep Date:	11/1/2012	Analysis Date:	11/1/2012		SeqNo:	191518	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.17	0.033	0.1667	0	101	80	120			

Sample ID	1210859-003CMS	SampType:	MS		TestCode:	EPA Method 7471: Mercury				
Client ID:	BatchQC	Batch ID:	4629		RunNo:	6634				
Prep Date:	11/1/2012	Analysis Date:	11/1/2012		SeqNo:	191520	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.19	0.033	0.1609	0.02890	103	75	125			

Sample ID	1210859-003CMSD	SampType:	MSD		TestCode:	EPA Method 7471: Mercury				
Client ID:	BatchQC	Batch ID:	4629		RunNo:	6634				
Prep Date:	11/1/2012	Analysis Date:	11/1/2012		SeqNo:	191521	Units:	mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.22	0.033	0.1651	0.02890	113	75	125	10.5	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	MB-4440	SampType:	MBLK	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	PBS	Batch ID:	4440	RunNo:	6493					
Prep Date:	10/22/2012	Analysis Date:	10/25/2012	SeqNo:	186820	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	2.5								
Arsenic	ND	2.5								
Barium	ND	0.10								
Beryllium	ND	0.15								
Cadmium	ND	0.10								
Chromium	ND	0.30								
Cobalt	ND	0.30								
Lead	ND	0.25								
Manganese	ND	0.10								
Nickel	ND	0.50								
Selenium	ND	2.5								
Silver	0.64	0.25								
Vanadium	ND	2.5								
Zinc	ND	2.5								

Sample ID	LCS-4440	SampType:	LCS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	LCSS	Batch ID:	4440	RunNo:	6493					
Date:	10/22/2012	Analysis Date:	10/25/2012	SeqNo:	186821	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	25	2.5	25.00	0.6605	96.6	80	120			
Arsenic	25	2.5	25.00	0	102	80	120			
Barium	25	0.10	25.00	0	98.6	80	120			
Beryllium	26	0.15	25.00	0	103	80	120			
Cadmium	25	0.10	25.00	0	98.8	80	120			
Chromium	25	0.30	25.00	0	99.0	80	120			
Cobalt	24	0.30	25.00	0	95.6	80	120			
Lead	24	0.25	25.00	0	96.6	80	120			
Manganese	24	0.10	25.00	0.05400	96.6	80	120			
Nickel	24	0.50	25.00	0	94.2	80	120			
Selenium	24	2.5	25.00	0	94.1	80	120			
Silver	6.0	0.25	5.000	0.6425	106	80	120			B
Vanadium	25	2.5	25.00	0	102	80	120			
Zinc	24	2.5	25.00	0	97.3	80	120			

Sample ID	1210771-001AMS	SampType:	MS	TestCode:	EPA Method 6010B: Soil Metals					
Client ID:	BatchQC	Batch ID:	4440	RunNo:	6493					
Prep Date:	10/22/2012	Analysis Date:	10/25/2012	SeqNo:	186845	Units:	mg/Kg			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	23	2.5	24.93	2.265	83.0	75	125			
Cadmium	20	0.10	24.93	0.03505	80.0	75	125			

Qualifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **1210771-001AMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC** Batch ID: **4440** RunNo: **6493**
Prep Date: **10/22/2012** Analysis Date: **10/25/2012** SeqNo: **186845** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chromium	25	0.30	24.93	3.270	86.6	75	125			
Selenium	17	2.5	24.93	0	68.1	75	125			S

Sample ID **1210771-001AMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC** Batch ID: **4440** RunNo: **6493**
Prep Date: **10/22/2012** Analysis Date: **10/25/2012** SeqNo: **186849** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	23	2.5	24.96	2.265	81.7	75	125	1.34	20	
Cadmium	19	0.10	24.96	0.03505	77.2	75	125	3.39	20	
Chromium	24	0.30	24.96	3.270	84.2	75	125	2.39	20	
Selenium	15	2.5	24.96	0	61.4	75	125	10.1	20	S

Sample ID **MB-4440** SampType: **MBLK** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **PBS** Batch ID: **4440** RunNo: **6546**
Prep Date: **10/22/2012** Analysis Date: **10/29/2012** SeqNo: **188992** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	ND	0.25								

Sample ID **LCS-4440** SampType: **LCS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **LCSS** Batch ID: **4440** RunNo: **6546**
Prep Date: **10/22/2012** Analysis Date: **10/29/2012** SeqNo: **188993** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	5.7	0.25	5.000	0	113	80	120			

Sample ID **1210771-001AMS** SampType: **MS** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC** Batch ID: **4440** RunNo: **6546**
Prep Date: **10/22/2012** Analysis Date: **10/29/2012** SeqNo: **189043** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	4.3	0.25	4.987	0	85.5	75	125			

Sample ID **1210771-001AMSD** SampType: **MSD** TestCode: **EPA Method 6010B: Soil Metals**
Client ID: **BatchQC** Batch ID: **4440** RunNo: **6546**
Prep Date: **10/22/2012** Analysis Date: **10/29/2012** SeqNo: **189044** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	4.0	0.25	4.992	0	80.9	75	125	5.39	20	

Qualifiers:

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

t: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID	**MB-4440**	SampType:	**MBLK**	TestCode:	**EPA Method 6010B: Soil Metals**					
Client ID:	**PBS**	Batch ID:	**4440**	RunNo:	**6670**					
Prep Date:	**10/22/2012**	Analysis Date:	**11/2/2012**	SeqNo:	**192431**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	1.0								

Sample ID	**LCS-4440**	SampType:	**LCS**	TestCode:	**EPA Method 6010B: Soil Metals**					
Client ID:	**LCSS**	Batch ID:	**4440**	RunNo:	**6670**					
Prep Date:	**10/22/2012**	Analysis Date:	**11/2/2012**	SeqNo:	**192432**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	27	1.0	25.00	0	109	80	120			

ifiers:

	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
P	Sample pH greater than 2	R	RPD outside accepted recovery limits

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1210860**

15-Nov-12

Client: Western Refining Southwest, Gallup

Project: SWMU NO.14

Sample ID **b6**	SampType: **MBLK**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/20/2012**	SeqNo: **184074** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.6		10.00		95.8	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/19/2012**	SeqNo: **184077** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.43	0.050	0.5000	0	86.2	85	115			
Surr: BFB	10		10.00		99.9	70	130			

Sample ID **1210660-001ams**	SampType: **MS**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/20/2012**	SeqNo: **184078** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	4.0	0.25	2.500	1.915	82.1	70	130			
Surr: BFB	46		50.00		91.6	70	130			

Sample ID **1210660-001amsd**	SampType: **MSD**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **BatchQC**	Batch ID: **R6394**	RunNo: **6394**
Prep Date:	Analysis Date: **10/20/2012**	SeqNo: **184079** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	3.8	0.25	2.500	1.915	76.4	70	130	3.70	20	
Surr: BFB	51		50.00		102	70	130	0	0	

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **PBW**	Batch ID: **R6402**	RunNo: **6402**
Prep Date:	Analysis Date: **10/21/2012**	SeqNo: **184122** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	9.5		10.00		95.0	70	130			

Sample ID **2.5ug gro lcs**	SampType: **LCS**	TestCode: **Modified EPA Method 8015B: Gasoline Range**
Client ID: **LCSW**	Batch ID: **R6402**	RunNo: **6402**
Prep Date:	Analysis Date: **10/21/2012**	SeqNo: **184125** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	92.2	85	115			
Surr: BFB	9.6		10.00		95.9	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Western Refining Gallup — Work Order Number: 1210860

Received by/date: AT 10/18/12

Logged By: **Michelle Garcia** 10/18/2012 8:00:00 AM Michelle Garcia

Completed By: **Michelle Garcia** 10/18/2012 9:43:44 AM Michelle Garcia

Reviewed By: 10/18/12

Chain of Custody

1. Were seals intact? Yes ☐ No ☐ Not Present ☑
2. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
3. How was the sample delivered? Client

Log In

4. Coolers are present? (see 19. for cooler specific information) Yes ☑ No ☐ NA ☐
5. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
6. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
7. Sample(s) in proper container(s)? Yes ☑ No ☐
8. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
9. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
10. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
11. VOA vials have zero headspace? Yes ☑ No ☐ No VOA Vials ☐
12. Were any sample containers received broken? Yes ☐ No ☑
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
14. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
15. Is it clear what analyses were requested? Yes ☑ No ☐
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: _____

Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

18. Additional remarks:

19. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Not Present			

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH-RPS
QA/QC Package:
[X] Standard [ ] Level 4 (Full Validation)
Accreditation
[ ] NELAP [ ] Other
[X] EDD (Type) EXCEL

Turn-Around Time:
[X] Standard [ ] Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH-RPS
Sampler: TRACY PAYNE-RPS
On Ice: [X] Yes [ ] No
Sample Temperature: 4.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210510	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/17/12	1015	SOIL	SWMU 14-24 (0-0.5')	2 VIALS	SOBI	-001										X						
	↓	↓	↓	2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1030		SWMU 14-24 (1.5-2')	2 VIALS	SOBI	-002										X						
				2 VIALS	MEOH											X						
				3 JARS	—											X	X	X	X			
	1100	W	EB101712	6 VOA	HCL & NEAT	-003										X						
				1 AMBER	—												X					
				1 PLASTIC	—														X			
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NaOH														X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
10/18/12	0753			10/18/12	0753
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Chain-of-Custody Record

Client: WESTERN REFINING SW, INC.
GALLUP REFINERY
Mailing Address: ROUTE 3 BOX 7
GALLUP, NM 87301
Phone #: 505-722-0217
email or Fax#: SCOTT CROUCH - RPS
QA/QC Package: ☒ Standard ☐ Level 4 (Full Validation)
Accreditation: ☐ NELAP ☐ Other
☒ EDD (Type) EXCEL

Turn-Around Time: ☒ Standard ☐ Rush
Project Name: SWMU No. 14
Project #:
Project Manager: SCOTT CROUCH - RPS
Sampler: TRACY PAYNE - RPS
On Ice: ☒ Yes ☐ No
Sample Temperature: 4.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1210360	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA) + TPH GRO	8270 (Semi-VOA)	TPH MRO & DRO	METALS			Air Bubbles (Y or N)
10/16/12	0900	GW	SWMU 14 -	6 VOA	HCL & NEAT	-004										X						
			OBP13-1GW	1 AMBER	—												X					
				1 PLASTIC	—														X			
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NaOH														X			
	1720	W	EB101612	6 VOA	HCL & NEAT	-005										X						
				1 AMBER	—												X					
				1 PLASTIC	—														X			
				1 PLASTIC	HNO_3														X			
				1 PLASTIC	NaOH														X			
10/16/12	—	W	TRIP BLANK	3 VOA	HCL	-006										X						

Date	Time	Relinquished by:	Received by:	Date	Time
10/17/12	0820			10/18/12	0800
Date:	Time:	Relinquished by:	Received by:	Date	Time

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Appendix F

Quality Assurance/Quality Control Review

Data Usability Summary
Western Refining Company

Data Validation Introduction: This summary presents data verification results for soil and water samples collected from the Gallup Refinery Solid Waste Management Units (SWMUs) 1 and 14. The data review was performed in accordance with the requirements of the US EPA *Functional Guidelines for Organic and Inorganic Data Review* and adherence to project objectives and quality assurance and control parameters set by the project laboratory Hall Environmental Analysis Laboratory, Inc.

Consistent with project objectives this sampling and analysis event provides current data on concentrations of chemicals of concern (COCs) in soil and ground water at the SWMUs.

A total of 234 samples were collected in July and October 2012 using standard procedures for the industry. Soil and water samples were submitted to Hall Environmental Analysis Laboratory, including quality assurance samples consisting of fourteen Equipment Blanks, ten Trip Blanks, four Field Blanks and five Methanol Blanks. Table 1 presents a summary of the field and laboratory sample identifications and sample media.

Water analytical results for the listed samples are reported on milligram per liter basis; soil on a milligram per kilogram basis. Non-detected results are reported as less than the value of the sample detection limit (SDL) with method quantitation limit data meeting acceptance limits.

All anomalies were noted in the quality control (QC) data associated with each data package.

Analyses requested included:

- Volatile organic compounds (VOCs) by USEPA Method 8260B;
- Semi-volatile organic compounds (SVOCs) by USEPA Method 8270C;
- Gasoline, diesel and motor oil range organics by SW-846 Method 8015B;
- Total recoverable metals by SW-846 Method 6010/6020;
- Cyanide by SW-846 Method 9012; and
- Mercury by USEPA Method 7470.

Quality Control Parameters Reviewed: The following QC parameters were examined:

- Chain-of-Custody (C-O-C);
- Sample preservation and temperature upon laboratory receipt;
- Holding times;
- Blank contamination (method, equipment, trip and field blanks);
- Surrogate Recovery (for organic parameters);
- Laboratory Control Sample (LCS) recovery and Relative Percent Difference (RPD);
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recovery and RPD;
- Duplicates (field and laboratory duplicates); and
- Other applicable QC parameters.

Data qualifiers used to qualify the analytical results associated with QC parameters outside of established data quality objectives are defined below.

- JH – The analyte was positively identified, however the result should be considered an estimate with a potential high bias.
- JL – The analyte was positively identified, however the result should be considered an estimate with a potential low bias.

- UJ – The reporting limit should be considered an estimated value.
- R – Quality control indicates that the data is not usable.

Results for the sampling event that required qualification based on this DUS are summarized in Table 2. Results qualified as "JH," "JL" or "UJ" are of acceptable quality and may be used quantitatively to fulfill project objectives. However, results qualified as "R" should be rejected and not used for this project.

Chain-of-Custody: The C-O-C documentation associated with project samples was found to be complete. C-O-Cs included sample identification, date and time of collection, requested parameters and relinquished/received signatures. All samples were received in the appropriate containers in good condition and met the laboratory's acceptance criteria. All sample numbers (field identification) on the C-O-C were cross-referenced to laboratory ID numbers and corresponding QC data. The laboratory correctly conducted analyses listed on the C-O-C

Sample Preservation and Temperature Upon Laboratory Receipt: Samples collected were received preserved and intact by Hall Environmental Laboratories, Inc. A few of the aqueous samples intended for metal analyses required additional preservation upon receipt. This extra step in the laboratory necessitated the qualification of some results as shown in Table 2. Data qualification for temperature was not required as samples were received at a temperature of 6.0 degrees Celsius or lower.

Holding Times: No data qualification for holding times was required as samples were extracted and analyzed within method-specified holding times.

Method Blanks: According to the LRCs and QC data summaries, method blanks were analyzed at the appropriate frequency. The few instances in which target compounds were detected in method blanks, the laboratory re-analyzed the sample with another batch. Therefore, no qualification was required for method blank contamination.

Trip Blanks: Trip blanks were analyzed as appropriate. Qualification was unnecessary as target organic compounds were not detected in the trip blank samples.

Field/Equipment Blanks: Field and equipment blanks were analyzed as appropriate. Qualification was unnecessary as target organic compounds were not detected in those samples.

Methanol Blanks: Methanol blanks were analyzed for VOCs. No analytes were detected in the methanol blanks above the respective laboratory reporting limits.

Surrogate Recovery: Surrogate recoveries for organic and inorganic analyses were performed at the required frequency and were within the acceptable ranges with a few exceptions. None of the exceptions required qualification, indicating that the method was in control and the data not adversely affected.

Laboratory Control Samples (LCS): LCS/LCS duplicates were performed at the required frequency and were within acceptance limits for percent recovery and reproducibility with the following exceptions.

- The LCS percent recovery for Trichloroethene (TCE) associated with eight samples was above acceptable limits. As TCE was not detected in those samples, no qualification was necessary.

- The reproducibility for 4-Nitrophenol and Pentachlorophenol associated with three samples were above acceptable limits. As neither compound was detected in those samples, no qualification was necessary.
- The LCS percent recovery for N-NItrosodi-n-propylamine associated with twenty samples was above acceptable limits. As the compound was not detected in those samples, no qualification was necessary.
- The LCS percent recovery for Selenium associated with eight samples was above acceptable limits. As the compound was not detected in those samples, no qualification was necessary.

Based on the LRCs, initial calibration and continuing calibration data met method requirements. Additionally, internal standards, analytical duplicate data and interference check standards were acceptable.

Matrix Spike (MS)/Matrix Spike Duplicate (MSD): MS/MSD samples were performed at the required frequency and MS/MSD percent recoveries and reproducibility were within acceptable limits except for the following:

- SWMU 1-1. MS recoveries for Acenapthene and Pyrene were low; N-Nitrosodi-n-propylamine and 4-Nitrophenol were unacceptably low.
- SWMU 1-5. MS recoveries for Antimony and Selenium were unacceptably low.
- SWMU 1-13. MS recovery for Diesel Range Organics was low.
- SWMU 1-17. MS recovery for Selenium was low; Antimony unacceptably low.
- SWMU 1-24. MS recovery for Antimony was unacceptably low. Selenium reproducibility was above acceptable limits but no additional qualification was required.
- SWMU 1-28. MS recovery for Antimony was low.
- SWMU 1-37. MS recovery for Diesel Range Organics was low.
- SWMU 14-2. MS recoveries for Antimony, Selenium, Vanadium and Zinc were low.
- SWMU 14-6. MS recovery for Gasoline Range Organics was low. Selenium, 1,2,4-Trichlorobenzene, 1,4-Dichlorobenzene, N-Nitrosodi-n-propylamine and Gasoline Range Organics reproducibilities were above acceptable limits but no additional qualification was required.
- SWMU 14-7. MS recovery for Antimony was high. N-Nitrosodi-n-propylamine reproducibility was unacceptable but no additional qualification was required.
- SWMU 14-10. MS recovery for Mercury was high.
- SWMU 14-19. MS recoveries for Antimony and Selenium were low. Antimony reproducibility was unacceptable but no additional qualification was required.
- SWMU 14-22. MS recoveries for Antimony, Chromium, Selenium and Zinc were low.
- SWMU 14-23. MS recoveries for Cobalt, Lead, Nickel and Selenium were low. Antimony reproducibility was above acceptable limits but no additional qualification was required.

These results are listed with the appropriate qualification in Table 2.

Field Precision – Field Duplicate Data: Field duplicate precision calculations were performed for sixteen duplicate sample sets. Precision was not calculated for an individual analyte if not detected in both the sample and duplicate. When not detected in either the sample or the duplicate, the analyte RDL was used as the concentration in the non-detected sample (Table 3). A field duplicate precision of 20% target determined the qualification shown in Table 3. Although a smaller actual difference between sample/duplicate results indicates a reduced chance of problems with reported results, all "J" qualified results should be viewed as estimates.

Summary: Qualified results are listed in Table 2. The analytical data are usable for the purpose of determining COC concentrations with the exception of the Antimony, Selenium, 4-Nitrophenol and N-Nitrosodi–n-propylamine results requiring "R" qualification. All rejections were required by very low MS recovery of non-detect compounds, but this only occurred in a small number of samples.

Table 1. Cross Reference List - Field and Laboratory ID Numbers

Lab ID	Field ID	Date Sampled	Media
1210372-001	SWMU 1-1 (2-4')	10/5/2012	Soil
1210372-002	SWMU 1-1 (10-12')	10/5/2012	Soil
1210372-003	SWMU 1-1 (13-14')	10/5/2012	Soil
1210372-004	SWMU 1-8 (16-18')	10/5/2012	Soil
1210372-005	SWMU 1-8 (19-20')	10/5/2012	Soil
1210372-006	SWMU 1-8 (4-6')	10/5/2012	Soil
1210372-007	SWMU 1-8 (10-12')	10/5/2012	Soil
1210372-008	SWMU 1-8 (12-14')	10/5/2012	Soil
1210372-009	SWMU 1-8 (16-18')	10/5/2012	Soil
1210372-010	EB100512	10/5/2012	Water
1210372-011	Trip Blank		Water
1210372-012	SWMU 1-4 GW	10/5/2012	Water
1210372-013	SWMU 1-5 GW	10/5/2012	Water
1210372-014	SWMU 1-8 GW	10/5/2012	Water
1210372-015	SWMU 1-7 (16-18')	10/4/2012	Soil
1210372-016	SWMU 1-6 (10-11')	10/4/2012	Soil
1210372-017	SWMU 1-6 (11-12')	10/4/2012	Soil
1210372-018	SWMU 1-7 (12-14')	10/4/2012	Soil
1210372-019	SWMU 1-7 (14-16')	10/4/2012	Soil
1210372-020	SWMU 1-6 (2-4')	10/4/2012	Soil
1210372-021	SWMU 1-6 (2-4') DUP	10/4/2012	Soil
1210372-022	SWMU 1-6 (4-6')	10/4/2012	Soil
1210372-023	SWMU 1-6 (7.5-8')	10/4/2012	Soil
1210372-024	EB100412	10/4/2012	Water
1210372-025	Trip Blank		Water
1210372-026	SWMU 1-4 GW	10/4/2012	Water
1210372-027	SWMU 1-6 GW	10/4/2012	Water
1210372-028	SWMU 1-7 GW	10/4/2012	Water
1210332-001	SWMU 1-4 (10-12') DUP	10/3/2012	Soil
1210332-002	SWMU 1-4 (17-18')	10/3/2012	Soil
1210332-003	SWMU 1-4 (23-24')	10/3/2012	Soil
1210332-004	Trip Blank		Water
1210332-005	SWMU 1-3 GW	10/3/2012	Water
1210332-006	SWMU 1-4 (8-10')	10/3/2012	Soil
1210332-007	SWMU 1-4 (10-12')	10/3/2012	Soil
1210332-008	SWMU 1-5 (26-27')	10/3/2012	Soil
1210332-009	SWMU 1-5 (27-28')	10/3/2012	Soil
1210332-010	EB100312	10/3/2012	Water
1210332-011	MeOH Blank 100312	10/3/2012	MEOH BLAN
1210332-012	SWMU 1-5 (10-12')	10/3/2012	Soil
1210332-013	SWMU 1-5 (14-16')	10/3/2012	Soil
1210332-014	SWMU 1-5 (16-18')	10/3/2012	Soil
1210332-015	SWMU 1-5 (24-25')	10/3/2012	Soil
1210279-001	SWMU 1-2 (6-8')	10/2/2012	Soil
1210279-002	SWMU 1-2 (10-11')	10/2/2012	Soil
1210279-003	SWMU 1-2 (14-16')	10/2/2012	Soil
1210279-004	SWMU 1-2 (17-17.25')	10/2/2012	Soil
1210279-005	SWMU 1-2 (19.5-20')	10/2/2012	Soil
1210279-006	SWMU 1-2 GW	10/2/2012	Water
1210279-007	Trip Blank		Water
1210279-008	SWMU 1-3 (2-4')	10/2/2012	Soil
1210279-009	SWMU 1-3 (10-11')	10/2/2012	Soil

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Lab ID	Field ID	Date Sampled	Media
1210279-010	SWMU 1-3 (11-11.25')	10/2/2012	Soil
1210279-011	SWMU 1-3 (18.5-19.5')	10/2/2012	Soil
1210279-012	SWMU 1-3 (19.5-20')	10/2/2012	Soil
1210279-013	EB100212	10/2/2012	Water
1210521-001	SWMU 1-24 (0-0.5')	10/8/2012	Soil
1210521-002	SWMU 1-24 (0-0.5') DUP	10/8/2012	Soil
1210521-003	SWMU 1-24 (1.5-2')	10/8/2012	Soil
1210521-004	SWMU 1-24 (10.5-11.5')	10/8/2012	Soil
1210521-005	SWMU 1-24 (16-18')	10/8/2012	Soil
1210521-006	SWMU 1-24 (24-26')	10/8/2012	Soil
1210521-007	SWMU 1-24 (32-34')	10/8/2012	Soil
1210521-008	MeOH Blank	10/8/2012	MEOH (SOIL)
1210653-001	SWMU 1-37 (0-0.5')	10/10/2012	Soil
1210653-002	SWMU 1-37 (1.5-2')	10/10/2012	Soil
1210653-003	SWMU 1-37 (8-8.5')	10/10/2012	Soil
1210653-004	SWMU 1-37 (8.5-9')	10/10/2012	Soil
1210653-005	SWMU 1-37 (12-13')	10/10/2012	Soil
1210653-006	SWMU 1-37 (13-14')	10/10/2012	Soil
1210653-007	SWMU 1-37 (17-18')	10/10/2012	Soil
1210660-001	SWMU 1-24 GW	10/10/2012	Water
1210660-002	SWMU 1-24 GW DUP	10/10/2012	Water
1210660-003	Trip Blank		Water
1210660-004	EB101012	10/10/2012	Water
1210692-001	SWMU 1-20 (0-0.5')	10/11/2012	Soil
1210692-002	SWMU 1-20 (0-0.5') DUP	10/11/2012	Soil
1210692-003	SWMU 1-20 (1.5-2')	10/11/2012	Soil
1210692-004	SWMU 1-20 (4-6')	10/11/2012	Soil
1210692-005	SWMU 1-20 (10-12')	10/11/2012	Soil
1210692-006	SWMU 1-38 (0-0.5')	10/11/2012	Soil
1210692-007	SWMU 1-38 (1.5-2')	10/11/2012	Soil
1210692-008	SWMU 1-38 (6-8')	10/11/2012	Soil
1210692-009	SWMU 1-27 (0-0.5')	10/12/2012	Soil
1210692-010	SWMU 1-27 (1.5-2')	10/12/2012	Soil
1210692-011	SWMU 1-28 (0-0.5')	10/12/2012	Soil
1210692-012	SWMU 1-28 (1.5-2')	10/12/2012	Soil
1210692-013	SWMU 1-28 (1.5-2') DUP	10/12/2012	Soil
1210692-014	SWMU 1-30 (0-0.5')	10/12/2012	Soil
1210692-015	SWMU 1-30 (1.5-2')	10/12/2012	Soil
1210692-016	SWMU 1-30 (4-6')	10/12/2012	Soil
1210692-017	SWMU 1-35 (0-0.5')	10/12/2012	Soil
1210692-018	SWMU 1-35 (1.5-2')	10/12/2012	Soil
1210692-019	SWMU 1-35 (4-6')	10/12/2012	Soil
1210692-020	MeOH Blank	10/12/2012	MEOH (SOIL)
1210692-021	SWMU 1-13 (0-0.5')	10/12/2012	Soil
1210692-022	SWMU 1-13 (1.5-2')	10/12/2012	Soil
1210692-023	SWMU 1-13 (2-4')	10/12/2012	Soil
1210692-024	SWMU 1-13 (4-6')	10/12/2012	Soil
1210692-025	SWMU 1-13 (4-6') DUP	10/12/2012	Soil
1210692-026	SWMU 1-37 GW	10/11/2012	Water
1210692-027	EB101112	10/11/2012	Water
1210692-028	EB101212	10/12/2012	Water
1210692-029	Trip Blank		Water

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Lab ID	Field ID	Date Sampled	Media
1210811-001	SWMU 1-9 (0-0.5')	10/15/2012	Soil
1210811-002	SWMU 1-9 (1.5-2')	10/15/2012	Soil
1210811-003	SWMU 1-10 (0-0.5')	10/15/2012	Soil
1210811-004	SWMU 1-10 (1.5-2')	10/15/2012	Soil
1210811-005	SWMU 1-11 (0-0.5')	10/15/2012	Soil
1210811-006	SWMU 1-11 (1.5-2')	10/15/2012	Soil
1210811-007	SWMU 1-12 (0-0.5')	10/15/2012	Soil
1210811-008	SWMU 1-12 (0.5-1')	10/15/2012	Soil
1210811-009	SWMU 1-14 (0-0.5')	10/15/2012	Soil
1210811-010	SWMU 1-14 (1.5-2')	10/15/2012	Soil
1210811-011	SWMU 1-14 (1.5-2') DUP	10/15/2012	Soil
1210811-012	SWMU 1-15 (0-0.5')	10/15/2012	Soil
1210811-013	SWMU 1-15 (1.5-2')	10/15/2012	Soil
1210811-014	SWMU 1-16 (0-0.5')	10/15/2012	Soil
1210811-015	SWMU 1-16 (1.5-2')	10/15/2012	Soil
1210811-016	SWMU 1-17 (0-0.5')	10/15/2012	Soil
1210811-017	SWMU 1-17 (1-1.5')	10/15/2012	Soil
1210811-018	EB101512	10/15/2012	Water
1210856-001	SWMU 1-31 (0-0.5')	10/16/2012	Soil
1210856-002	SWMU 1-32 (0-0.5')	10/16/2012	Soil
1210856-003	SWMU 1-32 (0-0.5') DUP	10/16/2012	Soil
1210856-004	SWMU 1-33 (0-0.5')	10/16/2012	Soil
1210856-005	SWMU 1-34 (0-0.5')	10/16/2012	Soil
1210856-006	SWMU 1-36 (0-0.5')	10/16/2012	Soil
1210858-001	SWMU 1-18 (0-0.5')	10/16/2012	Soil
1210858-002	SWMU 1-18 (1-1.5')	10/16/2012	Soil
1210858-003	SWMU 1-19 (0-0.5')	10/16/2012	Soil
1210858-004	SWMU 1-21 (0-0.5')	10/16/2012	Soil
1210858-005	SWMU 1-21 (0-0.5') DUP	10/16/2012	Soil
1210858-006	SWMU 1-22 (0-0.5')	10/16/2012	Soil
1210858-007	SWMU 1-22 (1.5-2')	10/16/2012	Soil
1210858-008	MeOH Blank	10/16/2012	MEOH (SOIL)
1210859-001	SWMU 1-23 (0-0.5')	10/16/2012	Soil
1210859-002	SWMU 1-39 (0-0.5')	10/16/2012	Soil
1210859-003	SWMU 1-25 (0-0.5')	10/16/2012	Soil
1210859-004	SWMU 1-25 (0.5-1')	10/16/2012	Soil
1210859-005	SWMU 1-26 (0-0.5')	10/16/2012	Soil
1210859-006	SWMU 1-29 (0-0.5')	10/16/2012	Soil
1207748-001	SWMU 14-1 (0-0.5')	7/16/2012	Soil
1207748-002	SWMU 14-1 (1.5-2')	7/16/2012	Soil
1207748-003	SWMU 14-1 (10-12')	7/16/2012	Soil
1207900-001	SWMU 14-3 (0-0.5')	7/18/2012	Soil
1207900-002	SWMU 14-3 (1.5-2')	7/18/2012	Soil
1207900-003	SWMU 14-3 (8-10')	7/18/2012	Soil
1207900-004	SWMU 14-3 (12-14')	7/18/2012	Soil
1207900-005	SWMU 14-3 (22.5-26')	7/18/2012	Soil
1207900-006	SWMU 14-1 (48-50')	7/18/2012	Soil
1207900-007	SWMU 14-3 GW	7/18/2012	Water
1207900-008	FB071812	7/18/2012	Water
1207900-009	Trip Blank		Water
1207917-001	SWMU 14-4 (0-0.5')	7/17/2012	Soil
1207917-002	SWMU 14-4 (1.5-2')	7/17/2012	Soil

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Lab ID	Field ID	Date Sampled	Media
1207917-003	SWMU 14-4 (10-12')	7/17/2012	Soil
1207917-004	SWMU 14-4 (19.5-20')	7/17/2012	Soil
1207917-005	SWMU 14-2 (0-0.5')	7/17/2012	Soil
1207917-006	SWMU 14-2 (1.5-2')	7/17/2012	Soil
1207917-007	SWMU 14-2 (8-10')	7/17/2012	Soil
1207917-008	SWMU 14-2 (8-10') DUP	7/17/2012	Soil
1207917-009	SWMU 14-2 (16-18')	7/17/2012	Soil
1207917-010	SWMU 14-2 (24-25')	7/17/2012	Soil
1207917-011	FB071712	7/17/2012	Water
1207917-012	EB071712	7/17/2012	Water
1207917-013	Trip Blank		Water
1207922-001	SWMU 14-9 (0-0.5')	7/18/2012	Soil
1207922-002	SWMU 14-9 (0-0.5') DUP	7/18/2012	Soil
1207922-003	SWMU 14-9 (1.5-2')	7/18/2012	Soil
1207922-004	SWMU 14-9 (4-6')	7/18/2012	Soil
1207922-005	SWMU 14-9 (13-14')	7/18/2012	Soil
1207922-006	SWMU 14-7 (0-0.5')	7/18/2012	Soil
1207922-007	SWMU 14-7 (1.5-2')	7/18/2012	Soil
1207922-008	SWMU 14-7 (6-8')	7/18/2012	Soil
1207922-009	SWMU 14-7 (23.5-24')	7/18/2012	Soil
1207922-010	EB071812	7/18/2012	Water
1210860-001	SWMU 14-24 (0-0.5')	10/17/2012	Soil
1210860-002	SWMU 14-24 (1.5-2')	10/17/2012	Soil
1210860-003	EB101712	10/17/2012	Water
1210860-004	SWMU 14-OAPIS-1GW	10/16/2012	Water
1210860-005	EB101612	10/16/2012	Water
1210860-006	Trip Blank		Water
1210656-001	SWMU 14-23 (0-0.5')	10/10/2012	Soil
1210656-002	SWMU 14-23 (1.5-2')	10/10/2012	Soil
1210656-003	SWMU 14-23 (12-14')	10/10/2012	Soil
1210656-004	SWMU 14-23 (14-16')	10/10/2012	Soil
1210585-001	EB100912	10/9/2012	Water
1210585-002	FB100912	10/9/2012	Water
1210583-001	SWMU 14-22 (0-0.5')	10/9/2012	Soil
1210583-002	SWMU 14-22 (1.5-2')	10/9/2012	Soil
1210583-003	SWMU 14-22 (4-6')	10/9/2012	Soil
1210583-004	SWMU 14-22 (4-6') DUP	10/9/2012	Soil
1210583-005	SWMU 14-22 (8-10')	10/9/2012	Soil
1210582-001	SWMU 14-6 (0-0.5')	10/9/2012	Soil
1210582-002	SWMU 14-6 (1.5-2')	10/9/2012	Soil
1210582-003	SWMU 14-6 (10-12')	10/9/2012	Soil
1210582-004	SWMU 14-6 (17-18')	10/9/2012	Soil
1210582-005	SWMU 14-21 (0-0.5')	10/9/2012	Soil
1210582-006	SWMU 14-21 (1.5-2')	10/9/2012	Soil
1210582-007	SWMU 14-21 (8-10')	10/9/2012	Soil
1207940-001	SWMU 14-10 (0-0.5')	7/19/2012	Soil
1207940-002	SWMU 14-10 (1.5-2')	7/19/2012	Soil
1207940-003	SWMU 14-8 (0-0.5')	7/19/2012	Soil
1207940-004	SWMU 14-8 (1.5-2')	7/19/2012	Soil
1207940-005	SWMU 14-8 (1.5-2') DUP	7/19/2012	Soil
1207940-006	SWMU 14-12 (0-0.5')	7/19/2012	Soil
1207940-007	SWMU 14-12 (1.5-2')	7/19/2012	Soil

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Lab ID	Field ID	Date Sampled	Media
1207940-008	SWMU 14-13 (0-0.5')	7/19/2012	Soil
1207940-009	SWMU 14-13 (1.5-2')	7/19/2012	Soil
1207940-010	SWMU 14-14 (0-0.5')	7/19/2012	Soil
1207940-011	SWMU 14-14 (1.5-2')	7/19/2012	Soil
1207940-012	SWMU 14-11 (0-0.5')	7/19/2012	Soil
1207940-013	SWMU 14-11 (1.5-2')	7/19/2012	Soil
1207940-014	SWMU 14-18 (0-0.5')	7/19/2012	Soil
1207940-015	SWMU 14-18 (1.5-2')	7/19/2012	Soil
1207940-016	SWMU 14-5 (0-0.5')	7/19/2012	Soil
1207940-017	SWMU 14-5 (0-0.5') DUP	7/19/2012	Soil
1207940-018	SWMU 14-5 (1.5-2')	7/19/2012	Soil
1207940-019	SWMU 14-19 (0-0.5')	7/19/2012	Soil
1207940-020	SWMU 14-19 (1.5-2')	7/19/2012	Soil
1207940-021	SWMU 14-17 (0-0.5')	7/19/2012	Soil
1207940-022	SWMU 14-17 (1.5-2')	7/19/2012	Soil
1207940-023	SWMU 14-16 (0-0.5')	7/19/2012	Soil
1207940-024	SWMU 14-16 (1.5-2')	7/19/2012	Soil
1207940-025	SWMU 14-15 (0-0.5')	7/19/2012	Soil
1207940-026	SWMU 14-15 (1.5-2')	7/19/2012	Soil
1207940-027	SWMU 14-20 (0-0.5')	7/19/2012	Soil
1207940-028	SWMU 14-20 (0-0.5') DUP	7/19/2012	Soil
1207940-029	SWMU 14-2 GW	7/19/2012	Water
1207940-030	FB071912	7/19/2012	Water
1207940-031	EB071912	7/19/2012	Water
1207940-032	Trip Blank		Water
1207940-033	MEOH Blank	7/19/2012	MEOH BLAN

Table 2. TRRP Data Qualification

Analyte	Sample ID	Lab ID	Method	Sample Date	Result	Units	Qualifier
4-Nitrophenol	SWMU 1-1 (2-4')	1210372-001	8270C	10/5/12	<1.2538	mg/kg	R
N-Nitrosodi-n-propylamine	SWMU 1-1 (2-4')	1210372-001	8270C	10/5/12	<1.003	mg/kg	R
Pyrene	SWMU 1-1 (2-4')	1210372-001	8270C	10/5/12	1.5	mg/kg	JL
4-Nitrophenol	SWMU 1-1 (10-12')	1210372-002	8270C	10/5/12	<0.251	mg/kg	R
N-Nitrosodi-n-propylamine	SWMU 1-1 (10-12')	1210372-002	8270C	10/5/12	<0.2008	mg/kg	R
Pyrene	SWMU 1-1 (10-12')	1210372-002	8270C	10/5/12	<0.2008	mg/kg	UJ
4-Nitrophenol	SWMU 1-1 (13-14')	1210372-003	8270C	10/5/12	<0.2484	mg/kg	R
N-Nitrosodi-n-propylamine	SWMU 1-1 (13-14')	1210372-003	8270C	10/5/12	<0.1987	mg/kg	R
Pyrene	SWMU 1-1 (13-14')	1210372-003	8270C	10/5/12	<0.1987	mg/kg	UJ
Antimony	SWMU 1-5 (10-12')	1210332-012	6010/6020	10/3/12	<12.5	mg/kg	R
Selenium	SWMU 1-5 (10-12')	1210332-012	6010/6020	10/3/12	<12.5	mg/kg	R
Antimony	SWMU 1-5 (14-16')	1210332-013	6010/6020	10/3/12	<12.5	mg/kg	R
Selenium	SWMU 1-5 (14-16')	1210332-013	6010/6020	10/3/12	<12.5	mg/kg	R
Antimony	SWMU 1-5 (16-18')	1210332-014	6010/6020	10/3/12	<12.5	mg/kg	R
Selenium	SWMU 1-5 (16-18')	1210332-014	6010/6020	10/3/12	<12.5	mg/kg	R
Pyrene	SWMU 1-5 (16-18')	1210332-014	8270C	10/3/12	<0.1993	mg/kg	UJ
Antimony	SWMU 1-5 (24-25')	1210332-015	6010/6020	10/3/12	<12.5	mg/kg	R
Selenium	SWMU 1-5 (24-25')	1210332-015	6010/6020	10/3/12	<12.5	mg/kg	R
Antimony	SWMU 1-5 (26-27')	1210332-008	6010/6020	10/3/12	<2.5	mg/kg	R
Selenium	SWMU 1-5 (26-27')	1210332-008	6010/6020	10/3/12	<2.5	mg/kg	R
Antimony	SWMU 1-5 (27-28')	1210332-009	6010/6020	10/3/12	<12.5	mg/kg	R
Selenium	SWMU 1-5 (27-28')	1210332-009	6010/6020	10/3/12	<12.5	mg/kg	R
Antimony	SWMU 1-13 (1.5-2')	1210692-022	6010/6020	10/12/2012	<5.0004	mg/kg	UJL
Antimony	SWMU 1-13 (2-4')	1210692-023	6010/6020	10/12/2012	<4.9999	mg/kg	UJL
Antimony	SWMU 1-13 (4-6')	1210692-024	6010/6020	10/12/2012	<4.9997	mg/kg	UJL
Antimony	SWMU 1-13 (4-6') DUP	1210692-024	6010/6020	10/12/2012	<5	mg/kg	UJL
Antimony	SWMU 1-17 (0-0.5')	1210811-016	6010/6020	10/15/2012	<5	mg/kg	R
Selenium	SWMU 1-17 (0-0.5')	1210811-016	6010/6020	10/15/2012	<5	mg/kg	UJL
Antimony	SWMU 1-17 (1-1.5')	1210811-017	6010/6020	10/15/2012	<5	mg/kg	R
Selenium	SWMU 1-17 (1-1.5')	1210811-017	6010/6020	10/15/2012	<5	mg/kg	UJL
Antimony	SWMU 1-20 (0-0.5') DUP	1210692-002	6010/6020	10/11/2012	<12.5	mg/kg	UJL
Antimony	SWMU 1-20 (1.5-2')	1210692-003	6010/6020	10/11/2012	<12.5002	mg/kg	UJL
Antimony	SWMU 1-24 (24-26')	1210521-006	6010/6020	10/8/2012	<12.5	mg/kg	R
Antimony	SWMU 1-24 (32-34')	1210521-007	6010/6020	10/8/2012	<12.5	mg/kg	R
Antimony	SWMU 1-27 (1.5-2')	1210692-010	6010/6020	10/12/2012	<12.5004	mg/kg	UJL
Antimony	SWMU 1-28 (0-0.5')	1210692-011	6010/6020	10/12/2012	<5	mg/kg	UJL
Antimony	SWMU 1-28 (1.5-2')	1210692-012	6010/6020	10/12/2012	<5	mg/kg	UJL
Diesel Range Organics (DRO)	SWMU 1-28 (1.5-2')	1210692-012	6010/6020	10/12/2012	<10.0301	mg/kg	UJ
Antimony	SWMU 1-28 (1.5-2') DUP	1210692-013	6010/6020	10/12/2012	<12.4997	mg/kg	UJL
Diesel Range Organics (DRO)	SWMU 1-28 (1.5-2') DUP	1210692-013	6010/6020	10/12/2012	<9.9305	mg/kg	UJ
Antimony	SWMU 1-2 GW	1210279-006	6010/6020	10/2/2012	<0.0125	mg/l	UJL
Arsenic	SWMU 1-2 GW	1210279-006	6010/6020	10/2/2012	0.063	mg/l	JL
Barium	SWMU 1-2 GW	1210279-006	6010/6020	10/2/2012	56	mg/l	JL
Beryllium	SWMU 1-2 GW	1210279-006	6010/6020	10/2/2012	0.21	mg/l	JL
Cadmium	SWMU 1-2 GW	1210279-006	6010/6020	10/2/2012	<0.05	mg/l	UJL
Chromium	SWMU 1-2 GW	1210279-006	6010/6020	10/2/2012	0.31	mg/l	JL
Cobalt	SWMU 1-2 GW	1210279-006	6010/6020	10/2/2012	0.53	mg/l	JL
Cyanide	SWMU 1-2 GW	1210279-006	9012	10/2/2012	0.037	mg/l	JL
Iron	SWMU 1-2 GW	1210279-006	6010/6020	10/2/2012	140	mg/l	JL
Lead	SWMU 1-2 GW	1210279-006	6010/6020	10/2/2012	1.7	mg/l	JL
Manganese	SWMU 1-2 GW	1210279-006	6010/6020	10/2/2012	95	mg/l	JL

Table 2. TRRP Data Qualification

Analyte	Sample ID	Lab ID	Method	Sample Date	Result	Units	Qualifier
Mercury	SWMU 1-2 GW	1210279-006	7470	10/2/2012	0.00027	mg/l	JL
Nickel	SWMU 1-2 GW	1210279-006	6010/6020	10/2/2012	0.95	mg/l	JL
Selenium	SWMU 1-2 GW	1210279-006	6010/6020	10/2/2012	0.059	mg/l	JL
Silver	SWMU 1-2 GW	1210279-006	6010/6020	10/2/2012	<0.125	mg/l	UJL
Vanadium	SWMU 1-2 GW	1210279-006	6010/6020	10/2/2012	<1.25	mg/l	UJL
Zinc	SWMU 1-2 GW	1210279-006	6010/6020	10/2/2012	1.1	mg/l	JL
Antimony	SWMU 1-3 GW	1210332-005	6010/6020	10/3/2012	<0.0025	mg/l	UJL
Arsenic	SWMU 1-3 GW	1210332-005	6010/6020	10/3/2012	0.015	mg/l	JL
Barium	SWMU 1-3 GW	1210332-005	6010/6020	10/3/2012	0.54	mg/l	JL
Beryllium	SWMU 1-3 GW	1210332-005	6010/6020	10/3/2012	0.0066	mg/l	JL
Cadmium	SWMU 1-3 GW	1210332-005	6010/6020	10/3/2012	<0.002	mg/l	UJL
Chromium	SWMU 1-3 GW	1210332-005	6010/6020	10/3/2012	0.015	mg/l	JL
Cobalt	SWMU 1-3 GW	1210332-005	6010/6020	10/3/2012	0.043	mg/l	JL
Cyanide	SWMU 1-3 GW	1210332-005	9012	10/3/2012	0.032	mg/l	JL
Iron	SWMU 1-3 GW	1210332-005	6010/6020	10/3/2012	20	mg/l	JL
Lead	SWMU 1-3 GW	1210332-005	6010/6020	10/3/2012	0.057	mg/l	JL
Manganese	SWMU 1-3 GW	1210332-005	6010/6020	10/3/2012	2.1	mg/l	JL
Mercury	SWMU 1-3 GW	1210332-005	7470	10/3/2012	<0.0002	mg/l	UJL
Nickel	SWMU 1-3 GW	1210332-005	6010/6020	10/3/2012	0.35	mg/l	JL
Selenium	SWMU 1-3 GW	1210332-005	6010/6020	10/3/2012	0.0097	mg/l	JL
Silver	SWMU 1-3 GW	1210332-005	6010/6020	10/3/2012	<0.005	mg/l	UJL
Vanadium	SWMU 1-3 GW	1210332-005	6010/6020	10/3/2012	<0.05	mg/l	UJL
Zinc	SWMU 1-3 GW	1210332-005	6010/6020	10/3/2012	0.068	mg/l	JL
Antimony	SWMU 1-6 GW	1210372-027	6010/6020	10/4/2012	<0.005	mg/l	UJL
Arsenic	SWMU 1-6 GW	1210372-027	6010/6020	10/4/2012	0.054	mg/l	JL
Barium	SWMU 1-6 GW	1210372-027	6010/6020	10/4/2012	3.4	mg/l	JL
Beryllium	SWMU 1-6 GW	1210372-027	6010/6020	10/4/2012	0.041	mg/l	JL
Cadmium	SWMU 1-6 GW	1210372-027	6010/6020	10/4/2012	<0.02	mg/l	UJL
Chromium	SWMU 1-6 GW	1210372-027	6010/6020	10/4/2012	0.16	mg/l	JL
Cobalt	SWMU 1-6 GW	1210372-027	6010/6020	10/4/2012	0.27	mg/l	JL
Cyanide	SWMU 1-6 GW	1210372-027	9012	10/4/2012	0.028	mg/l	JL
Iron	SWMU 1-6 GW	1210372-027	6010/6020	10/4/2012	94	mg/l	JL
Lead	SWMU 1-6 GW	1210372-027	6010/6020	10/4/2012	0.29	mg/l	JL
Manganese	SWMU 1-6 GW	1210372-027	6010/6020	10/4/2012	39	mg/l	JL
Mercury	SWMU 1-6 GW	1210372-027	7470	10/4/2012	0.00021	mg/l	UJL
Nickel	SWMU 1-6 GW	1210372-027	6010/6020	10/4/2012	0.55	mg/l	JL
Selenium	SWMU 1-6 GW	1210372-027	6010/6020	10/4/2012	0.024	mg/l	JL
Silver	SWMU 1-6 GW	1210372-027	6010/6020	10/4/2012	<0.05	mg/l	UJL
Vanadium	SWMU 1-6 GW	1210372-027	6010/6020	10/4/2012	<0.5	mg/l	UJL
Zinc	SWMU 1-6 GW	1210372-027	6010/6020	10/4/2012	0.88	mg/l	JL
Antimony	SWMU 1-7 GW	1210372-028	6010/6020	10/4/2012	<0.005	mg/l	UJL
Arsenic	SWMU 1-7 GW	1210372-028	6010/6020	10/4/2012	0.046	mg/l	JL
Barium	SWMU 1-7 GW	1210372-028	6010/6020	10/4/2012	3.2	mg/l	JL
Beryllium	SWMU 1-7 GW	1210372-028	6010/6020	10/4/2012	0.051	mg/l	JL
Cadmium	SWMU 1-7 GW	1210372-028	6010/6020	10/4/2012	<0.02	mg/l	UJL
Chromium	SWMU 1-7 GW	1210372-028	6010/6020	10/4/2012	0.17	mg/l	JL
Cobalt	SWMU 1-7 GW	1210372-028	6010/6020	10/4/2012	0.16	mg/l	JL
Cyanide	SWMU 1-7 GW	1210372-028	9012	10/4/2012	0.052	mg/l	JL
Iron	SWMU 1-7 GW	1210372-028	6010/6020	10/4/2012	130	mg/l	JL
Lead	SWMU 1-7 GW	1210372-028	6010/6020	10/4/2012	0.34	mg/l	JL
Manganese	SWMU 1-7 GW	1210372-028	6010/6020	10/4/2012	33	mg/l	JL
Mercury	SWMU 1-7 GW	1210372-028	7470	10/4/2012	0.00034	mg/l	UJL
Nickel	SWMU 1-7 GW	1210372-028	6010/6020	10/4/2012	0.46	mg/l	JL

Table 2. TRRP Data Qualification

Analyte	Sample ID	Lab ID	Method	Sample Date	Result	Units	Qualifier
Selenium	SWMU 1-7 GW	1210372-028	6010/6020	10/4/2012	0.022	mg/l	JL
Silver	SWMU 1-7 GW	1210372-028	6010/6020	10/4/2012	<0.05	mg/l	UJL
Vanadium	SWMU 1-7 GW	1210372-028	6010/6020	10/4/2012	<0.5	mg/l	UJL
Zinc	SWMU 1-7 GW	1210372-028	6010/6020	10/4/2012	0.42	mg/l	JL
Antimony	SWMU 1-8 GW	1210372-014	6010/6020	10/5/2012	<0.005	mg/l	UJL
Arsenic	SWMU 1-8 GW	1210372-014	6010/6020	10/5/2012	0.032	mg/l	JL
Barium	SWMU 1-8 GW	1210372-014	6010/6020	10/5/2012	4.7	mg/l	JL
Beryllium	SWMU 1-8 GW	1210372-014	6010/6020	10/5/2012	0.0065	mg/l	JL
Cadmium	SWMU 1-8 GW	1210372-014	6010/6020	10/5/2012	<0.004	mg/l	UJL
Chromium	SWMU 1-8 GW	1210372-014	6010/6020	10/5/2012	0.058	mg/l	JL
Cobalt	SWMU 1-8 GW	1210372-014	6010/6020	10/5/2012	0.053	mg/l	JL
Cyanide	SWMU 1-8 GW	1210372-014	9012	10/5/2012	0.018	mg/l	JL
Iron	SWMU 1-8 GW	1210372-014	6010/6020	10/5/2012	39	mg/l	JL
Lead	SWMU 1-8 GW	1210372-014	6010/6020	10/5/2012	0.078	mg/l	JL
Manganese	SWMU 1-8 GW	1210372-014	6010/6020	10/5/2012	7.9	mg/l	JL
Mercury	SWMU 1-8 GW	1210372-014	7470	10/5/2012	<0.0002	mg/l	UJL
Nickel	SWMU 1-8 GW	1210372-014	6010/6020	10/5/2012	0.11	mg/l	JL
Selenium	SWMU 1-8 GW	1210372-014	6010/6020	10/5/2012	0.0075	mg/l	JL
Silver	SWMU 1-8 GW	1210372-014	6010/6020	10/5/2012	<0.01	mg/l	UJL
Vanadium	SWMU 1-8 GW	1210372-014	6010/6020	10/5/2012	<0.1	mg/l	UJL
Zinc	SWMU 1-8 GW	1210372-014	6010/6020	10/5/2012	0.11	mg/l	JL
Antimony	SWMU 1-24 GW	1210660-001	6010/6020	10/10/2012	<0.005	mg/l	UJL
Arsenic	SWMU 1-24 GW	1210660-001	6010/6020	10/10/2012	0.052	mg/l	JL
Barium	SWMU 1-24 GW	1210660-001	6010/6020	10/10/2012	17	mg/l	JL
Beryllium	SWMU 1-24 GW	1210660-001	6010/6020	10/10/2012	0.032	mg/l	JL
Cadmium	SWMU 1-24 GW	1210660-001	6010/6020	10/10/2012	<0.004	mg/l	UJL
Chromium	SWMU 1-24 GW	1210660-001	6010/6020	10/10/2012	0.14	mg/l	JL
Cobalt	SWMU 1-24 GW	1210660-001	6010/6020	10/10/2012	0.11	mg/l	JL
Cyanide	SWMU 1-24 GW	1210660-001	9012	10/10/2012	0.059	mg/l	JL
Iron	SWMU 1-24 GW	1210660-001	6010/6020	10/10/2012	160	mg/l	JL
Lead	SWMU 1-24 GW	1210660-001	6010/6020	10/10/2012	0.49	mg/l	JL
Manganese	SWMU 1-24 GW	1210660-001	6010/6020	10/10/2012	43	mg/l	JL
Mercury	SWMU 1-24 GW	1210660-001	7470	10/10/2012	0.00022	mg/l	JL
Nickel	SWMU 1-24 GW	1210660-001	6010/6020	10/10/2012	0.21	mg/l	JL
Selenium	SWMU 1-24 GW	1210660-001	6010/6020	10/10/2012	0.023	mg/l	JL
Silver	SWMU 1-24 GW	1210660-001	6010/6020	10/10/2012	<0.01	mg/l	UJL
Vanadium	SWMU 1-24 GW	1210660-001	6010/6020	10/10/2012	0.2	mg/l	JL
Zinc	SWMU 1-24 GW	1210660-001	6010/6020	10/10/2012	0.27	mg/l	JL
Antimony	SWMU 1-24 GW DUP	1210660-002	6010/6020	10/10/2012	<0.005	mg/l	UJL
Arsenic	SWMU 1-24 GW DUP	1210660-002	6010/6020	10/10/2012	0.058	mg/l	JL
Barium	SWMU 1-24 GW DUP	1210660-002	6010/6020	10/10/2012	20	mg/l	JL
Beryllium	SWMU 1-24 GW DUP	1210660-002	6010/6020	10/10/2012	0.032	mg/l	JL
Cadmium	SWMU 1-24 GW DUP	1210660-002	6010/6020	10/10/2012	<0.004	mg/l	UJL
Chromium	SWMU 1-24 GW DUP	1210660-002	6010/6020	10/10/2012	0.16	mg/l	JL
Cobalt	SWMU 1-24 GW DUP	1210660-002	6010/6020	10/10/2012	0.11	mg/l	JL
Cyanide	SWMU 1-24 GW DUP	1210660-002	9012	10/10/2012	0.081	mg/l	JL
Iron	SWMU 1-24 GW DUP	1210660-002	6010/6020	10/10/2012	180	mg/l	JL
Lead	SWMU 1-24 GW DUP	1210660-002	6010/6020	10/10/2012	0.55	mg/l	JL
Manganese	SWMU 1-24 GW DUP	1210660-002	6010/6020	10/10/2012	39	mg/l	JL
Mercury	SWMU 1-24 GW DUP	1210660-002	7470	10/10/2012	0.00027	mg/l	JL
Nickel	SWMU 1-24 GW DUP	1210660-002	6010/6020	10/10/2012	0.21	mg/l	JL
Selenium	SWMU 1-24 GW DUP	1210660-002	6010/6020	10/10/2012	0.02	mg/l	JL
Silver	SWMU 1-24 GW DUP	1210660-002	6010/6020	10/10/2012	<0.01	mg/l	UJL
Vanadium	SWMU 1-24 GW DUP	1210660-002	6010/6020	10/10/2012	0.18	mg/l	JL
Zinc	SWMU 1-24 GW DUP	1210660-002	6010/6020	10/10/2012	0.28	mg/l	JL
Diesel Range Organics (DRO)	SWMU 1-37 GW	1210692-026	8015B	10/11/2012	1	mg/l	JL
Antimony	SWMU 14-3 GW	1207900-007	6010/6020	7/18/2012	<0.0025	mg/l	UJL
Arsenic	SWMU 14-3 GW	1207900-007	6010/6020	7/18/2012	0.024	mg/l	JL
Barium	SWMU 14-3 GW	1207900-007	6010/6020	7/18/2012	2.8	mg/l	JL

Table 2. TRRP Data Qualification

Analyte	Sample ID	Lab ID	Method	Sample Date	Result	Units	Qualifier
Beryllium	SWMU 14-3 GW	1207900-007	6010/6020	7/18/2012	0.042	mg/l	JL
Cadmium	SWMU 14-3 GW	1207900-007	6010/6020	7/18/2012	<0.02	mg/l	UJL
Chromium	SWMU 14-3 GW	1207900-007	6010/6020	7/18/2012	0.38	mg/l	JL
Cobalt	SWMU 14-3 GW	1207900-007	6010/6020	7/18/2012	0.12	mg/l	JL
Iron	SWMU 14-3 GW	1207900-007	6010/6020	7/18/2012	120	mg/l	JL
Lead	SWMU 14-3 GW	1207900-007	6010/6020	7/18/2012	0.19	mg/l	JL
Manganese	SWMU 14-3 GW	1207900-007	6010/6020	7/18/2012	45	mg/l	JL
Mercury	SWMU 14-3 GW	1207900-007	7470	7/18/2012	0.00011	mg/l	JL
Nickel	SWMU 14-3 GW	1207900-007	6010/6020	7/18/2012	0.18	mg/l	JL
Selenium	SWMU 14-3 GW	1207900-007	6010/6020	7/18/2012	0.0096	mg/l	JL
Silver	SWMU 14-3 GW	1207900-007	6010/6020	7/18/2012	<0.05	mg/l	UJL
Vanadium	SWMU 14-3 GW	1207900-007	6010/6020	7/18/2012	0.52	mg/l	JL
Zinc	SWMU 14-3 GW	1207900-007	6010/6020	7/18/2012	1.1	mg/l	JL
Chloride	SWMU 14-OAPIS-1GW	1210860-004		10/16/2012	<0.5	mg/l	UJL
Selenium	EB101612	1210860-005	6010/6020	10/16/2012	<0.001	mg/l	UJL
Chloride	EB101612	1210860-005		10/16/2012	1900	mg/l	JL
Fluoride	EB101612	1210860-005		10/16/2012	2.9	mg/l	JH
Sulfate	EB101612	1210860-005		10/16/2012	100	mg/l	JHE
Selenium	EB101712	1210860-003	6010/6020	10/17/2012	<0.001	mg/l	UJL
Chloride	EB101712	1210860-003		10/17/2012	<0.5	mg/l	UJL
Cyanide	SWMU 14-1 (48-50')	1207900-006	9012	7/18/2012	<0.5	mg/kg	UJL
Antimony	SWMU 14-2 (0-0.5')	1207917-005	6010/6020	7/17/2012	4	mg/kg	JL
Selenium	SWMU 14-2 (0-0.5')	1207917-005	6010/6020	7/17/2012	<12.5	mg/kg	UJL
Vanadium	SWMU 14-2 (0-0.5')	1207917-005	6010/6020	7/17/2012	31	mg/kg	JL
Zinc	SWMU 14-2 (0-0.5')	1207917-005	6010/6020	7/17/2012	17	mg/kg	JL
Antimony	SWMU 14-2 (1.5-2.0')	1207917-006	6010/6020	7/17/2012	3.6	mg/kg	JL
Selenium	SWMU 14-2 (1.5-2.0')	1207917-006	6010/6020	7/17/2012	<12.501	mg/kg	UJL
Vanadium	SWMU 14-2 (1.5-2.0')	1207917-006	6010/6020	7/17/2012	21	mg/kg	JL
Zinc	SWMU 14-2 (1.5-2.0')	1207917-006	6010/6020	7/17/2012	35	mg/kg	JL
Antimony	SWMU 14-2 (8-10')	1207917-007	6010/6020	7/17/2012	0.82	mg/kg	JL
Selenium	SWMU 14-2 (8-10')	1207917-007	6010/6020	7/17/2012	<2.5	mg/kg	UJL
Vanadium	SWMU 14-2 (8-10')	1207917-007	6010/6020	7/17/2012	20	mg/kg	JL
Zinc	SWMU 14-2 (8-10')	1207917-007	6010/6020	7/17/2012	37	mg/kg	JL
Antimony	SWMU 14-2 (8-10') Dup	1207917-008	6010/6020	7/17/2012	0.63	mg/kg	JL
Selenium	SWMU 14-2 (8-10') Dup	1207917-008	6010/6020	7/17/2012	<2.5	mg/kg	UJL
Vanadium	SWMU 14-2 (8-10') Dup	1207917-008	6010/6020	7/17/2012	23	mg/kg	JL
Zinc	SWMU 14-2 (8-10') Dup	1207917-008	6010/6020	7/17/2012	64	mg/kg	JL
Antimony	SWMU 14-2 (16-18')	1207917-009	6010/6020	7/17/2012	4.7	mg/kg	JL
Selenium	SWMU 14-2 (16-18')	1207917-009	6010/6020	7/17/2012	<12.5	mg/kg	UJL
Vanadium	SWMU 14-2 (16-18')	1207917-009	6010/6020	7/17/2012	22	mg/kg	JL
Zinc	SWMU 14-2 (16-18')	1207917-009	6010/6020	7/17/2012	26	mg/kg	JL
Antimony	SWMU 14-2 (24-25')	1207917-010	6010/6020	7/17/2012	3.3	mg/kg	JL
Selenium	SWMU 14-2 (24-25')	1207917-010	6010/6020	7/17/2012	<12.5	mg/kg	UJL
Vanadium	SWMU 14-2 (24-25')	1207917-010	6010/6020	7/17/2012	52	mg/kg	JL
Zinc	SWMU 14-2 (24-25')	1207917-010	6010/6020	7/17/2012	31	mg/kg	JL
Cyanide	SWMU 14-3 (8-10')	1207900-003	9012	7/18/2012	<0.5	mg/kg	UJL
Cyanide	SWMU 14-3 (25.5-26')	1207900-005	9012	7/18/2012	<0.5	mg/kg	UJL
2,4-Dinitrotoluene	SWMU 14-6 (0-0.5')	1210582-001	8270C	10/9/2012	<0.9987	mg/kg	UJ
Gasoline Range Organics (GRO	SWMU 14-6 (0-0.5')	1210582-001	8015B	10/9/2012	<5	mg/kg	UJ
2,4-Dinitrotoluene	SWMU 14-6 (1.5-2')	1210582-002	8270C	10/9/2012	<0.9924	mg/kg	UJ
Gasoline Range Organics (GRO	SWMU 14-6 (1.5-2')	1210582-002	8015B	10/9/2012	<5	mg/kg	UJ
2,4-Dinitrotoluene	SWMU 14-6 (10-12')	1210582-003	8270C	10/9/2012	<0.9901	mg/kg	UJ
Gasoline Range Organics (GRO	SWMU 14-6 (10-12')	1210582-003	8015B	10/9/2012	220	mg/kg	JL
2,4-Dinitrotoluene	SWMU 14-6 (17-18')	1210582-004	8270C	10/9/2012	<0.499	mg/kg	UJ
Gasoline Range Organics (GRO	SWMU 14-6 (17-18')	1210582-004	8015B	10/9/2012	<5	mg/kg	UJ
Antimony	SWMU 14-7 (0-0.5')	1207922-006	6010/6020	7/18/2012	5.3	mg/kg	JH
N-Nitrosodi-n-propylamine	SWMU 14-7 (0-0.5')	1207922-006	8270C	7/18/2012	<1.008	mg/kg	R
N-Nitrosodi-n-propylamine	SWMU 14-7 (1.5-2')	1207922-007	8270C	7/18/2012	<0.403	mg/kg	R
Antimony	SWMU 14-7 (6-8')	1207922-008	6010/6020	7/18/2012	4.5	mg/kg	JH

Table 2. TRRP Data Qualification

Analyte	Sample ID	Lab ID	Method	Sample Date	Result	Units	Qualifier
N-Nitrosodi-n-propylamine	SWMU 14-7 (6-8')	1207922-008	8270C	7/18/2012	<0.398	mg/kg	R
Antimony	SWMU 14-7 (23.5-24')	1207922-009	6010/6020	7/18/2012	4.6	mg/kg	JH
N-Nitrosodi-n-propylamine	SWMU 14-7 (23.5-24')	1207922-009	8270C	7/18/2012	<0.199	mg/kg	R
Mercury	SWMU 14-10 (0-0.5')	1207940-001	7470	7/19/2012	0.32	mg/kg	JH
Mercury	SWMU 14-10 (1.5-2.0')	1207940-002	7470	7/19/2012	0.21	mg/kg	JH
Antimony	SWMU 14-19 (0-0.5')	1207940-019	6010/6020	7/19/2012	<12.5	mg/kg	UJL
Selenium	SWMU 14-19 (0-0.5')	1207940-019	6010/6020	7/19/2012	<12.5	mg/kg	UJL
Antimony	SWMU 14-19 (1.5-2.0')	1207940-020	6010/6020	7/19/2012	<12.5	mg/kg	UJL
Selenium	SWMU 14-19 (1.5-2.0')	1207940-020	6010/6020	7/19/2012	<12.5	mg/kg	UJL
2,4-Dinitrotoluene	SWMU 14-21 (0-0.5')	1210582-005	8270C	10/9/2012	<0.499	mg/kg	UJ
2,4-Dinitrotoluene	SWMU 14-21 (1.5-2')	1210582-006	8270C	10/9/2012	<0.4988	mg/kg	UJ
2,6-Dinitrotoluene	SWMU 14-21 (8-10')	1210582-007	8270C	10/9/2012	<0.4957	mg/kg	UJ
Antimony	SWMU 14-22 (0-0.5')	1210583-001	6010/6020	10/9/2012	<12.5	mg/kg	UJL
Chromium	SWMU 14-22 (0-0.5')	1210583-001	6010/6020	10/9/2012	12	mg/kg	JL
Selenium	SWMU 14-22 (0-0.5')	1210583-001	6010/6020	10/9/2012	<12.5	mg/kg	UJL
2,4-Dinitrotoluene	SWMU 14-22 (0-0.5')	1210583-001	8270C	10/9/2012	<0.4987	mg/kg	UJ
Antimony	SWMU 14-22 (1.5-2')	1210583-002	6010/6020	10/9/2012	<5	mg/kg	UJL
Chromium	SWMU 14-22 (1.5-2')	1210583-002	6010/6020	10/9/2012	10	mg/kg	JL
Selenium	SWMU 14-22 (1.5-2')	1210583-002	6010/6020	10/9/2012	<5	mg/kg	UJL
2,4-Dinitrotoluene	SWMU 14-22 (1.5-2')	1210583-002	8270C	10/9/2012	<0.4944	mg/kg	UJ
Antimony	SWMU 14-22 (4-6')	1210583-003	6010/6020	10/9/2012	<5	mg/kg	UJL
Chromium	SWMU 14-22 (4-6')	1210583-003	6010/6020	10/9/2012	7.6	mg/kg	JL
Selenium	SWMU 14-22 (4-6')	1210583-003	6010/6020	10/9/2012	<5	mg/kg	UJL
2,4-Dinitrotoluene	SWMU 14-22 (4-6')	1210583-003	8270C	10/9/2012	<0.5045	mg/kg	UJ
Antimony	SWMU 14-22 (4-6') DUP	1210583-004	6010/6020	10/9/2012	<5	mg/kg	UJL
Chromium	SWMU 14-22 (4-6') DUP	1210583-004	6010/6020	10/9/2012	6.8	mg/kg	JL
Selenium	SWMU 14-22 (4-6') DUP	1210583-004	6010/6020	10/9/2012	<5	mg/kg	UJL
Antimony	SWMU 14-22 (8-10')	1210583-005	6010/6020	10/9/2012	<5	mg/kg	UJL
Chromium	SWMU 14-22 (8-10')	1210583-005	6010/6020	10/9/2012	9.3	mg/kg	JL
Selenium	SWMU 14-22 (8-10')	1210583-005	6010/6020	10/9/2012	<5	mg/kg	UJL
Antimony	SWMU 14-23 (0-0.5')	1210656-001	6010/6020	10/10/2012	<5	mg/kg	R
Cobalt	SWMU 14-23 (0-0.5')	1210656-001	6010/6020	10/10/2012	3.4	mg/kg	JL
Lead	SWMU 14-23 (0-0.5')	1210656-001	6010/6020	10/10/2012	4.2	mg/kg	JL
Nickel	SWMU 14-23 (0-0.5')	1210656-001	6010/6020	10/10/2012	5.9	mg/kg	JL
Selenium	SWMU 14-23 (0-0.5')	1210656-001	6010/6020	10/10/2012	<5	mg/kg	UJL
Diesel Range Organics (DRO)	SWMU 14-23 (0-0.5')	1210656-001	8015B	10/10/2012	45	mg/kg	JL
Antimony	SWMU 14-23 (1.5-2')	1210656-002	6010/6020	10/10/2012	<5	mg/kg	R
Cobalt	SWMU 14-23 (1.5-2')	1210656-002	6010/6020	10/10/2012	3.7	mg/kg	JL
Lead	SWMU 14-23 (1.5-2')	1210656-002	6010/6020	10/10/2012	7.6	mg/kg	JL
Nickel	SWMU 14-23 (1.5-2')	1210656-002	6010/6020	10/10/2012	6.5	mg/kg	JL
Selenium	SWMU 14-23 (1.5-2')	1210656-002	6010/6020	10/10/2012	<5	mg/kg	UJL
Diesel Range Organics (DRO)	SWMU 14-23 (1.5-2')	1210656-002	8015B	10/10/2012	32	mg/kg	JL
Antimony	SWMU 14-23 (12-14')	1210656-003	6010/6020	10/10/2012	<5	mg/kg	R
Cobalt	SWMU 14-23 (12-14')	1210656-003	6010/6020	10/10/2012	4	mg/kg	JL
Lead	SWMU 14-23 (12-14')	1210656-003	6010/6020	10/10/2012	3.7	mg/kg	JL
Nickel	SWMU 14-23 (12-14')	1210656-003	6010/6020	10/10/2012	7.2	mg/kg	JL
Selenium	SWMU 14-23 (12-14')	1210656-003	6010/6020	10/10/2012	<5	mg/kg	UJL
Antimony	SWMU 14-23 (14-16')	1210656-004	6010/6020	10/10/2012	<5	mg/kg	R
Cobalt	SWMU 14-23 (14-16')	1210656-004	6010/6020	10/10/2012	4	mg/kg	JL
Lead	SWMU 14-23 (14-16')	1210656-004	6010/6020	10/10/2012	3.5	mg/kg	JL
Nickel	SWMU 14-23 (14-16')	1210656-004	6010/6020	10/10/2012	6.8	mg/kg	JL
Selenium	SWMU 14-23 (14-16')	1210656-004	6010/6020	10/10/2012	<5	mg/kg	UJL
Selenium	SWMU 14-24 (0-0.5')	1210860-001	6010/6020	10/17/2012	<5	mg/kg	UJL
Selenium	SWMU 14-24 (1.5-2')	1210860-002	6010/6020	10/17/2012	<5	mg/kg	UJL

U - Consider analyte not detected.

UJ - Reporting limit itself considered an estimate.

JL - Analyte detected and identified. Associated numerical value is approximate analyte concentration. Bias in result likely to be low.

JH - Analyte detected and identified. Associated numerical value is approximate analyte concentration.

Table 2. TRRP Data Qualification

Analyte	Sample ID	Lab ID	Method	Sample Date	Result	Units	Qualifier

Bias in result likely to be high.

UJL - Reporting limit itself considered an estimate; biased low.

UJH - Reporting limit itself considered an estimate; biased high.

E - Result above quantitation range.

R - Result rejected.

Table 3. Field Precision

JULY/OCTOBER 2012 FIELD DUPLICATE ANAYSES[1]

Analyte	Sample[2]	Duplicate[2]	Units	RPD%	Qualified
SWMU 1-24 GW					
Arsenic	0.052	0.058	mg/L	-10.9	
Barium	17	20	mg/L	-16.2	
Beryllium	0.032	0.032	mg/L	0.0	
Chromium	0.14	0.16	mg/L	-13.3	
Cobalt	0.11	0.11	mg/L	0.0	
Cyanide	0.059	0.081	mg/L	-31.4	J
Iron	160	180	mg/L	-11.8	
Lead	0.49	0.55	mg/L	-11.5	
Manganese	43	39	mg/L	9.8	
Mercury	0.00022	0.00027	mg/L	-20.4	J
Nickel	0.21	0.21	mg/L	0.0	
Selenium	0.023	0.02	mg/L	14.0	
Vanadium	0.2	0.18	mg/L	10.5	
Zinc	0.27	0.28	mg/L	-3.6	
1,2,4-Trimethylbenzene	0.015	0.014	mg/L	6.9	
Acetone	0.052	0.064	mg/L	-20.7	J
Benzene	0.02	0.019	mg/L	5.1	
Ethylbenzene	0.0089	0.0088	mg/L	1.1	
Methyl tert-butyl ether (MTBE)	0.065	0.07	mg/L	-7.4	
Naphthalene	0.022	0.021	mg/L	4.7	
Toluene	0.018	0.019	mg/L	-5.4	
Xylenes, Total	0.038	0.036	mg/L	5.4	
1-Methylnaphthalene	0.01	0.011	mg/L	-9.5	
2,4-Dimethylphenol	0.23	0.26	mg/L	-12.2	
Naphthalene	0.011	0.012	mg/L	-8.7	
Diesel Range Organics (DRO)	1.9	1.9	mg/L	0.0	
Gasoline Range Organics (GRO)	1.9	1.9	mg/L	0.0	
SWMU 1-4 (10-12')					
Barium	360	870	mg/kg	-82.9	J
Chromium	3.7	6.4	mg/kg	-53.5	J
Cobalt	2	3.1	mg/kg	-43.1	J
Iron	5300	9200	mg/kg	-53.8	J
Lead	3.1	4.4	mg/kg	-34.7	J
Manganese	550	1400	mg/kg	-87.2	J
Nickel	2.9	5	mg/kg	-53.2	J
Vanadium	12.5	19	mg/kg	-41.3	J
Acetone	0.0153	0.0116	mg/kg	27.5	J
SWMU 1-6 (2-4')					
Barium	660	930	mg/kg	-34.0	J
Chromium	6.1	7	mg/kg	-13.7	
Cobalt	3.5	3.9	mg/kg	-10.8	
Iron	9600	10000	mg/kg	-4.1	
Lead	5.4	5	mg/kg	7.7	
Manganese	1000	830	mg/kg	18.6	
Nickel	5	5.2	mg/kg	-3.9	
Vanadium	25	24	mg/kg	4.1	
Zinc	25	13	mg/kg	63.2	J
Acetone	0.477	0.46	mg/kg	3.6	
Ethylbenzene	0.00563	0.00112	mg/kg	133.6	J

Table 3. Field Precision

Analyte	Sample[2]	Duplicate[2]	Units	RPD%	Qualified
Xylenes, Total	0.0431	0.00863	mg/kg	133.3	J
SWMU 1-13 (4-6')					
Barium	120	290	mg/kg	-82.9	J
Beryllium	0.71	0.68	mg/kg	4.3	
Chromium	7.8	7.3	mg/kg	6.6	
Cobalt	4.1	4	mg/kg	2.5	
Iron	11000	11000	mg/kg	0.0	
Lead	2.5	3	mg/kg	-18.2	
Manganese	320	310	mg/kg	3.2	
Nickel	6.6	6.5	mg/kg	1.5	
Vanadium	17	16	mg/kg	6.1	
Zinc	14	14	mg/kg	0.0	
Acetone	0.0561	0.0645	mg/kg	-13.9	
Methyl tert-butyl ether (MTBE)	0.003	0.00604	mg/kg	-67.3	J
SWMU 1-14 (1.5-2')					
Barium	360	240	mg/kg	40.0	J
Beryllium	0.75	0.81	mg/kg	-7.7	
Chromium	11	11	mg/kg	0.0	
Cobalt	4.4	5	mg/kg	-12.8	
Iron	13000	15000	mg/kg	-14.3	
Lead	4.1	1	mg/kg	121.6	J
Manganese	430	350	mg/kg	20.5	J
Nickel	7.6	8.3	mg/kg	-8.8	
Vanadium	19	28	mg/kg	-38.3	J
Zinc	16	21	mg/kg	-27.0	J
Acetone	0.0202	0.0139	mg/kg	37.0	J
SWMU 1-20 (0-0.5')					
Barium	740	840	mg/kg	-12.7	
Beryllium	0.71	0.94	mg/kg	-27.9	J
Chromium	19	23	mg/kg	-19.0	
Cobalt	4	5.4	mg/kg	-29.8	J
Iron	15000	19000	mg/kg	-23.5	J
Lead	2.6	3.4	mg/kg	-26.7	J
Manganese	650	680	mg/kg	-4.5	
Mercury	0.038	0.037	mg/kg	2.7	
Nickel	6.9	8.5	mg/kg	-20.8	J
Vanadium	22	32	mg/kg	-37.0	J
Zinc	22	28	mg/kg	-24.0	J
1,2,4-Trimethylbenzene	0.0014	0.00184	mg/kg	-27.2	J
2-Butanone	0.022	0.0314	mg/kg	-35.2	J
Acetone	3.31	3.98	mg/kg	-18.4	
Benzene	0.00137	0.00188	mg/kg	-31.4	J
Ethylbenzene	0.0448	0.0622	mg/kg	-32.5	J
Isopropylbenzene	0.0021	0.00282	mg/kg	-29.3	J
Toluene	0.00197	0.00386	mg/kg	-64.8	J
Xylenes, Total	0.279	0.379	mg/kg	-30.4	J
SWMU 1-21 (0-0.5')					
Barium	440	290	mg/kg	41.1	J
Beryllium	0.77	0.89	mg/kg	-14.5	
Chromium	9.9	11	mg/kg	-10.5	
Cobalt	4.1	4.5	mg/kg	-9.3	

Table 3. Field Precision

Analyte	Sample[2]	Duplicate[2]	Units	RPD%	Qualified
Iron	14000	17000	mg/kg	-19.4	
Lead	2.6	2.3	mg/kg	12.2	
Manganese	450	470	mg/kg	-4.3	
Nickel	7.5	8.4	mg/kg	-11.3	
Vanadium	19	22	mg/kg	-14.6	
Zinc	17	18	mg/kg	-5.7	
Acetone	0.0144	0.0316	mg/kg	-74.8	J
Benzene	0.00183	0.00178	mg/kg	2.8	
Toluene	0.00147	0.00111	mg/kg	27.9	J
SWMU 1-24 (0-0.5')					
Barium	220	180	mg/kg	20.0	
Chromium	9.5	9.6	mg/kg	-1.0	
Cobalt	5.1	4.4	mg/kg	14.7	
Iron	20000	10000	mg/kg	66.7	J
Lead	9.3	7.8	mg/kg	17.5	
Manganese	520	290	mg/kg	56.8	J
Nickel	9	8.5	mg/kg	5.7	
Vanadium	24	18	mg/kg	28.6	J
Zinc	34	29	mg/kg	15.9	
1,2,4-Trimethylbenzene	0.00108	0.00156	mg/kg	-36.4	J
2-Butanone	0.00862	0.0082	mg/kg	5.0	
Acetone	0.095	0.0811	mg/kg	15.8	
Benzene	0.000878	0.00094	mg/kg	-6.8	
Ethylbenzene	0.0008	0.000989	mg/kg	-21.1	J
Toluene	0.0023	0.0029	mg/kg	-23.1	J
Trichlorofluoromethane	0.00328	0.00436	mg/kg	-28.3	J
Diesel Range Organics (DRO)	14	11	mg/kg	24.0	J
Motor Oil Range Organics (MRO)	50.5051	71	mg/kg	-33.7	J
SWMU 1-28 (1.5-2')					
Barium	570	630	mg/kg	-10.0	
Beryllium	0.41	0.75	mg/kg	-58.6	J
Chromium	5.2	6	mg/kg	-14.3	
Cobalt	2.7	4.1	mg/kg	-41.2	J
Iron	8800	10000	mg/kg	-12.8	
Lead	1.4	3.1	mg/kg	-75.6	J
Manganese	430	680	mg/kg	-45.0	J
Nickel	3.7	4.8	mg/kg	-25.9	J
Vanadium	12	22	mg/kg	-58.8	J
Zinc	8.8	12.4997	mg/kg	-34.7	J
Acetone	54.1	34.8	mg/kg	43.4	J
Benzene	2.53	2.48	mg/kg	2.0	
Toluene	3.54	2.86	mg/kg	21.3	J
Xylenes, Total	2.38	1.64	mg/kg	36.8	J
SWMU 1-32 (0-0.5')					
Barium	600	580	mg/kg	3.4	
Beryllium	0.64	0.66	mg/kg	-3.1	
Chromium	17	21	mg/kg	-21.1	J
Cobalt	4	5.1	mg/kg	-24.2	J
Iron	14000	19000	mg/kg	-30.3	J
Lead	6.3	8	mg/kg	-23.8	J
Manganese	440	540	mg/kg	-20.4	J

Table 3. Field Precision

Analyte	Sample[2]	Duplicate[2]	Units	RPD%	Qualified
Mercury	0.13	0.13	mg/kg	0.0	
Nickel	13	16	mg/kg	-20.7	J
Vanadium	22	28	mg/kg	-24.0	J
Zinc	36	43	mg/kg	-17.7	
1,2,4-Trimethylbenzene	0.00179	0.00207	mg/kg	-14.5	
1,3,5-Trimethylbenzene	0.0008	0.000842	mg/kg	-5.1	
Acetone	0.0551	0.0483	mg/kg	13.2	
Benzene	0.0014	0.00134	mg/kg	4.4	
Ethylbenzene	0.00107	0.00105	mg/kg	1.9	
Toluene	0.00442	0.00384	mg/kg	14.0	
Xylenes, Total	0.00394	0.00404	mg/kg	-2.5	
Diesel Range Organics (DRO)	19	29	mg/kg	-41.7	J
Motor Oil Range Organics (MRO)	100	200	mg/kg	-66.7	J
SWMU 14-2 (8-10')					
Antimony	0.82	0.63	mg/kg	26.2	J
Arsenic	1.6	2.1	mg/kg	-27.0	J
Barium	400	400	mg/kg	0.0	
Beryllium	0.58	0.7	mg/kg	-18.8	
Chromium	76	97	mg/kg	-24.3	J
Cobalt	3.7	4.2	mg/kg	-12.7	
Iron	14000	16000	mg/kg	-13.3	
Lead	4.6	5.7	mg/kg	-21.4	J
Manganese	400	330	mg/kg	19.2	
Mercury	0.29	1.5	mg/kg	-135.2	J
Nickel	6.6	7.5	mg/kg	-12.8	
Vanadium	20	23	mg/kg	-14.0	
Zinc	37	64	mg/kg	-53.5	J
1,2,4-Trimethylbenzene	6.2	5.4	mg/kg	13.8	
1,2-Dibromoethane (EDB)	0.29	0.26	mg/kg	10.9	
1,2-Dichloropropane	0.16	0.14	mg/kg	13.3	
1,3,5-Trimethylbenzene	0.39	0.29	mg/kg	29.4	J
1-Methylnaphthalene	16	15	mg/kg	6.5	
2-Chlorotoluene	1	0.1	mg/kg	163.6	J
2-Methylnaphthalene	17	17	mg/kg	0.0	
4-Isopropyltoluene	0.45	0.42	mg/kg	6.9	
Acetone	8.5	8.1	mg/kg	4.8	
Benzene	0.22	0.25	mg/kg	-12.8	
Ethylbenzene	1.1	1	mg/kg	9.5	
Isopropylbenzene	0.33	0.33	mg/kg	0.0	
Naphthalene	3	2.9	mg/kg	3.4	
n-Butylbenzene	0.66	0.62	mg/kg	6.3	
n-Propylbenzene	0.69	0.63	mg/kg	9.1	
sec-Butylbenzene	0.34	0.31	mg/kg	9.2	
Xylenes, Total	1	0.95	mg/kg	5.1	
1-Methylnaphthalene	16	19	mg/kg	-17.1	
2-Methylnaphthalene	16	20	mg/kg	-22.2	J
Bis(2-chloroethyl)ether	1.012	0.67	mg/kg	40.7	J
Naphthalene	2.5	3.1	mg/kg	-21.4	J
Phenanthrene	3	3.3	mg/kg	-9.5	
Diesel Range Organics (DRO)	3300	11000	mg/kg	-107.7	J
Gasoline Range Organics (GRO)	210	250	mg/kg	-17.4	

Table 3. Field Precision

Analyte	Sample[2]	Duplicate[2]	Units	RPD%	Qualified
SWMU 14-5 (0-0.5')					
Barium	490	460	mg/kg	6.3	
Beryllium	0.68	0.53	mg/kg	24.8	J
Chromium	63	29	mg/kg	73.9	J
Cobalt	5.3	3.9	mg/kg	30.4	J
Cyanide	0.6	0.5	mg/kg	18.2	
Iron	18000	12000	mg/kg	40.0	J
Lead	14	9.9	mg/kg	34.3	J
Manganese	550	870	mg/kg	-45.1	J
Mercury	0.27	0.23	mg/kg	16.0	
Nickel	9.8	7.1	mg/kg	32.0	J
Vanadium	26	19	mg/kg	31.1	J
Zinc	190	160	mg/kg	17.1	
1,1,2,2-Tetrachloroethane	0.00104	0.001	mg/kg	3.9	
Acetone	0.0181	0.0116	mg/kg	43.8	J
Benzene	0.001	0.000652	mg/kg	42.1	J
Toluene	0.000344	0.00079	mg/kg	-78.7	J
Trichlorofluoromethane	0.001	0.000315	mg/kg	104.2	J
Benzoic acid	0.44	2.509	mg/kg	-140.3	J
Diesel Range Organics (DRO)	300	280	mg/kg	6.9	
Gasoline Range Organics (GRO)	5.4	20	mg/kg	-115.0	J
Motor Oil Range Organics (MRO)	240	220	mg/kg	8.7	
SWMU 14-8 (1.5-2.0')					
Barium	690	410	mg/kg	50.9	J
Beryllium	0.88	0.93	mg/kg	-5.5	
Chromium	10	11	mg/kg	-9.5	
Cobalt	4.7	5	mg/kg	-6.2	
Iron	13000	14000	mg/kg	-7.4	
Lead	5	3.7	mg/kg	29.9	J
Manganese	190	210	mg/kg	-10.0	
Nickel	7.9	8.5	mg/kg	-7.3	
Vanadium	18	21	mg/kg	-15.4	
Zinc	15	17	mg/kg	-12.5	
1,2,4-Trimethylbenzene	6.7	8.4	mg/kg	-22.5	J
1,2-Dibromoethane (EDB)	0.31	0.43	mg/kg	-32.4	J
1,2-Dichloropropane	0.23	0.27	mg/kg	-16.0	
1,3,5-Trimethylbenzene	2.2	2.7	mg/kg	-20.4	J
1-Methylnaphthalene	2	2.1	mg/kg	-4.9	
2-Chlorotoluene	1	0.11	mg/kg	160.4	J
2-Methylnaphthalene	2.3	2.5	mg/kg	-8.3	
4-Isopropyltoluene	0.44	0.53	mg/kg	-18.6	
Acetone	7.1	6.9	mg/kg	2.9	
Benzene	0.35	0.33	mg/kg	5.9	
Ethylbenzene	3.8	4.7	mg/kg	-21.2	J
Isopropylbenzene	0.97	1.2	mg/kg	-21.2	J
Naphthalene	1.1	1.3	mg/kg	-16.7	
n-Butylbenzene	0.58	0.69	mg/kg	-17.3	
n-Propylbenzene	1.4	1.7	mg/kg	-19.4	
sec-Butylbenzene	0.47	0.62	mg/kg	-27.5	J
Toluene	1.4	1.7	mg/kg	-19.4	
Xylenes, Total	9.3	12	mg/kg	-25.4	J

Table 3. Field Precision

Analyte	Sample[2]	Duplicate[2]	Units	RPD%	Qualified
1-Methylnaphthalene	3.6	1.5	mg/kg	82.4	J
2-Methylnaphthalene	4.2	1.6	mg/kg	89.7	J
Benzoic acid	2.3	1.3	mg/kg	55.6	J
Naphthalene	1.5	0.77	mg/kg	64.3	J
Phenanthrene	1.1	0.995	mg/kg	10.0	
Pyrene	0.6	0.995	mg/kg	-49.5	J
Diesel Range Organics (DRO)	4300	3600	mg/kg	17.7	
Gasoline Range Organics (GRO)	170	240	mg/kg	-34.1	J
SWMU 14-9 (0-0.5')					
Barium	480	490	mg/kg	-2.1	
Beryllium	0.58	1	mg/kg	-53.2	J
Chromium	13	22	mg/kg	-51.4	J
Cobalt	3.8	5.9	mg/kg	-43.3	J
Cyanide	0.5	1	mg/kg	-66.7	J
Iron	14000	18000	mg/kg	-25.0	J
Lead	5.5	40	mg/kg	-151.6	J
Manganese	1800	460	mg/kg	118.6	J
Mercury	0.68	0.32	mg/kg	72.0	J
Nickel	6.3	11	mg/kg	-54.3	J
Vanadium	18	29	mg/kg	-46.8	J
Zinc	44	57	mg/kg	-25.7	J
1,1,2,2-Tetrachloroethane	0.00043	0.001	mg/kg	-79.7	J
1,2,4-Trimethylbenzene	0.002	0.00895	mg/kg	-126.9	J
1,3,5-Trimethylbenzene	0.000458	0.00292	mg/kg	-145.8	J
1-Methylnaphthalene	0.0674	0.137	mg/kg	-68.1	J
2-Methylnaphthalene	0.107	0.239	mg/kg	-76.3	J
4-Isopropyltoluene	0.001	0.000342	mg/kg	98.1	J
Acetone	0.00307	0.00472	mg/kg	-42.4	J
Benzene	0.001	0.000381	mg/kg	89.6	J
Ethylbenzene	0.000542	0.00285	mg/kg	-136.1	J
Isopropylbenzene	0.001	0.000323	mg/kg	102.3	J
Naphthalene	0.0183	0.0471	mg/kg	-88.1	J
n-Butylbenzene	0.000177	0.000938	mg/kg	-136.5	J
n-Propylbenzene	0.001	0.000675	mg/kg	38.8	J
sec-Butylbenzene	0.001	0.000284	mg/kg	111.5	J
Toluene	0.000262	0.00171	mg/kg	-146.9	J
Xylenes, Total	0.00282	0.0168	mg/kg	-142.5	J
1-Methylnaphthalene	1.5	1.5	mg/kg	0.0	
2-Methylnaphthalene	1.9	1.7	mg/kg	11.1	
3+4-Methylphenol	0.4	1	mg/kg	-85.7	J
Benzoic acid	0.59	0.79	mg/kg	-29.0	J
Bis(2-ethylhexyl)phthalate	2.6	1	mg/kg	88.9	J
Phenanthrene	1.7	1.9	mg/kg	-11.1	
Diesel Range Organics (DRO)	1000	1000	mg/kg	0.0	
Gasoline Range Organics (GRO)	20	27	mg/kg	-29.8	J
SWMU 14-20 (0-0.5')					
Barium	940	890	mg/kg	5.5	
Beryllium	0.69	0.76	mg/kg	-9.7	
Chromium	9.4	8.7	mg/kg	7.7	
Cobalt	5.2	7	mg/kg	-29.5	J
Iron	13000	14000	mg/kg	-7.4	

Table 3. Field Precision

Analyte	Sample[2]	Duplicate[2]	Units	RPD%	Qualified
Lead	2.7	3	mg/kg	-10.5	
Manganese	650	910	mg/kg	-33.3	J
Mercury	0.0064	0.007	mg/kg	-9.0	
Nickel	6.9	8	mg/kg	-14.8	
Vanadium	21	24	mg/kg	-13.3	
Zinc	17	22	mg/kg	-25.6	J
Trichlorofluoromethane	0.000525	0.001	mg/kg	-62.3	J
Gasoline Range Organics (GRO)	1.7	5	mg/kg	-98.5	J
SWMU 14-22 (4-6')					
Barium	170	170	mg/kg	0.0	
Beryllium	0.89	0.84	mg/kg	5.8	
Chromium	7.6	6.8	mg/kg	11.1	
Cobalt	4.3	3.9	mg/kg	9.8	
Iron	13000	12000	mg/kg	8.0	
Lead	4	4.2	mg/kg	-4.9	
Manganese	370	230	mg/kg	46.7	J
Nickel	7.2	6.5	mg/kg	10.2	
Vanadium	13	12	mg/kg	8.0	
Zinc	13	12	mg/kg	8.0	
Acetone	0.0151	0.0149	mg/kg	1.3	
Benzene	0.0019	0.00171	mg/kg	10.5	
Toluene	0.00162	0.0012	mg/kg	29.8	J

[1]RPD not calculated if analyte not detected in sample and duplicate.

[2]RDL used for ND if analyte not detected in either sample or duplicate.

RPD% = ((SR-DR)*200)/(SR+DR)